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THE EFFECT OF SELF-REGULATION WRITING STRATEGIES AND GENDER ON WRITING SELF-EFFICACY AND PERSUASIVE WRITING ACHIEVEMENT FOR SECONDARY STUDENTS

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Abstract

This study investigated the impact of a self-regulation writing intervention program on the writing self-efficacy and persuasive writing achievement of ninth and tenth grade students. In addition, this study explored whether gender differences in writing may be addressed by the type of writing program that is implemented. Limited empirical studies have examined the impact of gender and self-regulation on persuasive writing achievement with heterogeneously grouped secondary school students. Understanding the influence of self-regulation writing strategies on writing self-efficacy and persuasive writing achievement, particularly in the context of gender, may assist schools and teachers in better preparing for the Common Core State Standards (CCSS) and the Smarter Balanced Assessment Consortium's (SBAC) new generation of assessments.

This research took place in a small, suburban high school in the Northeast. The researcher utilized a sample of convenience of 400 students in the ninth and tenth grades. The study was quasi-experimental in nature, with a pretest-posttest comparison group design using intact classrooms of students. Classrooms of students were randomly assigned to a

treatment condition which employed a writing curriculum that followed a modified process approach with embedded strategy instruction in writing and self-regulation or a comparison condition which employed a writing curriculum that followed a traditional process approach without embedded strategy instruction in writing and self-regulation.

Students' posttest persuasive writing achievement scores were analyzed using a two-way analysis of co-variance (ANCOVA) using pretest scores as a covariate. The analysis of these data resulted in no significant difference in posttest scores between the treatment and comparison groups. Female students scored significantly higher than male students, regardless of the type of writing program employed.

A series of three hierarchical multiple linear regressions were also conducted to determine whether the type of writing curriculum and gender could explain variation in the three components of writing self-efficacy, ideation, conventions, and self-regulation after accounting for variation in pretest self-efficacy scores. Follow-up analyses revealed that gender was a significant predictor of writing self-efficacy posttest scores in the domain of conventions; girls tended to have a higher belief in their own abilities in terms of writing conventions than boys. Implications for educators and researchers are discussed.

APPROVAL PAGE

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THE EFFECT OF SELF-REGULATION WRITING STRATEGIES AND GENDER ON WRITING SELF-EFFICACY AND PERSUASIVE WRITING ACHIEVEMENT FOR SECONDARY STUDENTS

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DEDICATION

"You've always had the power my dear, you just had to learn it for yourself" (Baum, 1900). No matter how many times I may have doubted myself over the last five years, my family never wavered from their confidence in me. Whether it was a word of encouragement, an empathetic ear, a few hours of child care, or a clean house you have all been along for the ride these last few years no matter what. You all knew that this degree was important to me, and that made it important to all of you. Thank you.

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CHAPTER ONE: INTRODUCTION AND IDENTIFICATION OF THE TOPIC

According to the National Commission on Writing's 2003 report entitled, *The Neglected "R": The need for a Writing Revolution*, the United States has ignored the need for writing reform for the last 20 years. With support from corporate and educational leaders, the commission has issued a call to all educators and policy makers to place writing in the forefront of educational priorities:

> American education will never realize its potential as an engine of opportunity and economic growth until a writing revolution puts language and communication in the proper place in the classroom. Writing is how students connect the dots in their knowledge. Although many models of effective ways to teach writing exist, both the teaching and practice of writing are increasingly shortchanged throughout the school and college years. Writing, always time-consuming for student and teacher, is today hard-pressed in the American classroom. Of the three *R's*, writing is clearly most neglected. (National Commission on Writing, 2003, p. 3)

The commission has documented the fundamental need to develop the skill of writing in young people. Citing evidence from the business world, the commission has solidified an argument in favor of reprioritizing America's curricular requirements to focus on writing. According to their 2004 report, *Writing: A Ticket to Work…Or a Ticket Out*, "A survey of 120 major American corporations employing nearly 8 million people concludes that in today's workplace, writing is a 'threshold skill' for hiring and promotion…Survey results indicate that writing is a ticket to professional opportunity" (National Commission on Writing, 2004, p. 3). Writing is an essential academic skill and one with which students

continue to struggle. A writing curriculum that is used to teach students how to manage their own learning could result in higher writing achievement scores.

Rationale for Selecting the Topic

The purpose of this study was to determine whether the implementation of a writing intervention program aimed at teaching self-regulation strategies would impact students' persuasive writing achievement scores. With the advent of the Common Core State Standards (CCSS) and the new generation of assessments from the Smarter Balanced Assessment Consortium (SBAC), students need to be self-directed and flexible in their writing abilities. Traditional standardized tests of writing often call for students to follow a prescribed format in their responses. Schools and teachers have been pressured to *teach to the test*, and this pressure has forced students to rely on formulaic writing with little room for personal expression or connectedness (National Writing Project [NWP] & Nagin, 2006).

The new standards and the new generation of writing assessments are designed to be authentic and less predictable (National Governors Association Center for Best Practices, 2010), as students may be asked to write persuasively one year and then engage in a narrative writing experience the next. Therefore, students will need to be prepared with a broad set of writing skills and strategies to transfer the skills they have been taught about writing to the situation presented in the prompt. In addition, both the CCSS and SBAC assessments are moving secondary students in a more rigorous direction, pushing students to engage in the more complex writing genre of argumentation. This research study investigated one possible writing program that could be helpful to teachers and students as they move forward with these new challenges.

Statement of the Problem

Writing achievement is an important component of standardized testing and secondary curricula. In the state of Connecticut, the Connecticut Academic Performance Test (CAPT) has traditionally been used to assess persuasive student writing achievement in grade 10. According to the CAPT technical report (Hendrawan & Wibowo, 2011) a team of educators established five levels of performance to measure student achievement on the CAPT interdisciplinary writing task: (a) below basic, (b) basic, (c) proficient, (d) goal, and (e) advanced. Results for the testing years 2006-2011 reveal that in grade 10 the percentage of students identified as *at or above goal* ranges from 53% to 61.3%, and the percentage of students *at or above proficient* ranges from 82.3% to 88.6% (Connecticut State Department of Education [CSDE], 2012).

When these data are examined for gender differences, the results are striking. In the same period (2006-2011), girls outperformed boys at both levels of scoring. In grade 10, the percentage of boys scoring *at or above goal* varied from 44.3% - 52.9% while the percentage of girls scoring in the *at or above goal* category varied from 61.9% - 69.9%. The gender gap was even more pronounced in the *at or above proficiency* level: in grade 10, boys' scores varied from 76.8% - 84.3% and girls' scores varied from 87.8% - 92.9% (CSDE, 2012). The results of these assessments demonstrate that in some cases, almost half of Connecticut's students are not performing at the acceptable level of goal. Furthermore, these results consistently document a gender gap in writing achievement.

The problem is replicated at the national level. In the case of the National Assessment of Education Progress (NAEP), there are three achievement levels: (a) basic, (b) proficient, and (c) advanced. According to the results of the 2011 NAEP, 79% of 12th-grade

students are at or above the *basic* level in writing. Only 27% are considered at or above the *proficient* level, and only 3% are considered *advanced* (National Center for Education Statistics [NCES], 2012). When these national data are broken down even further it is evident that the gender achievement gap in writing is not unique to the state of Connecticut. In 2011, 29% of girls scored in the *proficient* band compared to only 19% of boys. Similarly, in the lowest score category of *below basic*, the gender break down is 28% of boys and only 14% of girls (NCES, 2012).

Potential Benefits of Research

The purpose of this study was to allow students to break down the task of persuasive writing and examine specific aspects of the writing process as they learn self-regulation strategies that both support and engage them with the process. The results may be an effective tool in the future development of successful writing curricula.

There are multiple potential benefits of this study. This research may allow teachers to learn how to best create a learning environment in which the writing experience is meaningful and encourages students to grow and succeed as writers. The new Common Core State Standards (CCSS) demand that students' writing be flexible in nature. Students must be able to demonstrate proficiency in the ability to communicate across genres for a variety of purposes (National Governors Association Center for Best Practices, 2010). This emphasis on flexibility requires students to be active practitioners of writing, synthesizing information from a variety of credible sources to reach a well-supported conclusion. It is hoped that the findings of this study may reveal strategies that can be successfully used to help students develop these writing skills and abilities so that they are better prepared to meet this demand.

Current research surrounding the use of self-regulation strategies (e.g., Glaser & Brunstein, 2007; Harris, Graham, & Mason, 2006) has been primarily relegated to small homogeneous populations of learners. In addition, many of these studies have been conducted with young students in elementary school and middle school who have been identified as learning- disabled. This study examined the effect of self-regulation strategies and gender on the persuasive writing abilities of a heterogeneously grouped sample of secondary students, which could potentially help to generalize the effectiveness of these strategies to the population of secondary students.

Finally, prior studies (e.g., Pajares & Valiante, 2001; Williams & Takaku, 2011) have explored the gender gap in writing achievement and identified the areas in which writing deficiencies exist, but these studies have not proposed writing strategies for overcoming the gap. By highlighting the use of a very specific set of writing strategies, this study allows for clarity about specific steps that can be taken to help boys improve their writing abilities. In this regard, this study can help educators to better understand the nuances behind the gender gap that continues to undermine secondary student writing achievement.

Definition of Key Terms

The following terms were used throughout this research study:

1. **Persuasive Writing** involves "taking a position and trying to get an audience to agree" (Smee, 2009, para. 6). Examining this genre of writing more closely, researcher Steven Graham (1990) identifies the following four functional elements of a persuasive essay: a) premise, b) reasons, c) conclusion, and d) elaboration. Graham (1990) defines these elements as follows:
    a. Premise – the subject's statement of belief;

b. Reasons – explanations as to why the subject believed a particular premise;
c. Conclusion – a closing statement…a statement that brings everything together;
d. Elaboration – scored as an elaboration on a premise, reason, or a conclusion (p. 785).

2. **Persuasive Writing Achievement** is defined as "evidence of the five dimensions (takes a clear position on the issue, supports the position with accurate and relevant information from the source materials, uses information from all of the source materials, organizes ideas logically and effectively, and expresses ideas in own words with clarity and fluency)" (CSDE, 2006, p. 16). Persuasive writing achievement will be measured by the participating school's social studies department developed persuasive essay rubric (Appendix A). This persuasive essay rubric was adapted from the CAPT writing rubric (CSDE, 2006) and was further expanded to ensure alignment with the new Common Core State Standards (CCSS) and the new generation of assessments from the Smarter Balanced Assessment Consortium (SBAC). In this study, students' persuasive writing achievement will be assessed on a scale of 1-6 (1 being low and 6 being high) for each of five components of persuasive writing. The five components of this rubric are: (a) thesis; (b) use of support/evidence; (c) accuracy, relevancy, and development of ideas; (d) organization of response; (e) fluency of writing; and (f) conclusion.
3. **Process Writing** is an instructional method that emphasizes working through various stages of the writing process, beginning with the basics of idea generation and continuing with all necessary steps leading up to the final revisions of the writing.

Process writing allows both teachers and students to recognize not only the complexities of writing, but also the intense critical thinking that accompanies quality writing (Bean, 2001).

4. **Self-Efficacy** is defined by Bandura (1986) as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (p. 396).
5. **Self-Regulated Strategy Development (SRSD)** is a cognitive teaching strategy that allows students to spend time not only composing written products, but also thinking about what and how they are writing (Harris & Graham, 1996).
6. **Self-Regulation** refers to "the self-directive process by which learners transform their mental abilities into academic skills" (Zimmerman, 2002, p. 65).
7. **Writing Self-Efficacy** is a specific type of self-efficacy measure. "Confidence that one can perform successfully in a particular domain…self-efficacy becomes especially critical when domain-related tasks are demanding and motivational conditions are less than ideal. Writing is one such domain" (Bruning, Dempsey, Kauffman, McKim, & Zumbrunn, 2012, p. 1). Three dimensions of writing self-efficacy:
    a. **Ideation** is the practice of "Generating ideas…an ongoing process in working memory influencing all other parts of writing…involves writers' abilities to generate the content and ordering of their thoughts" (Bruning et al., 2012, p. 1, 4).

b. **Writing Conventions** refers to the expression of "…those ideas using writing's language-related tools…a set of generally accepted standards for expressing ideas in writing in a given language" (Bruning et al., 2012, p. 1, 4).

c. **Writing Self-Regulation** involves "Managing writing decisions and behaviors...self-regulatory skills are needed not only to generate productive ideas and writing strategies but also to manage the anxieties and emotions that can accompany writing" (Bruning et al., 2012, p. 1, 5).

Research Questions and Hypotheses

This study examined the impact of gender and self-regulation-based writing strategies on the writing achievement and self-efficacy of ninth and tenth grade student participants. By using a systematic approach, the following research questions and hypotheses were explored:

1. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students who participate in a Writing Instructional Program that follows a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) and those who participate in a Writing Instructional Program that follows a traditional process approach without embedded strategy instruction in writing and self-regulation (comparison)?
    a. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) students who participate in a Writing Instructional Program that follows a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) and

those who participate in a Writing Instructional Program that follows a traditional process approach without embedded strategy instruction in writing and self-regulation (comparison)?

b. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students?

c. Is there a significant interaction between Writing Instructional Program and Gender?

Non-directional hypothesis: There will be a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students who participate in a Writing Instructional Program with embedded self-regulation strategies (treatment) and those who participate in a traditional Writing Instructional Program without embedded self-regulation strategies (comparison).

2. To what extent and in what manner do Gender and Writing Instructional Program explain the variation in students' *posttest* Writing Self-efficacy (Ideation, Conventions, Self-regulation), above and beyond *pretest* Writing Self-efficacy (Ideation, Conventions, Self-regulation) scores?

Non-directional hypothesis: Gender and Type of Writing Program will significantly explain the variation in students' posttest Writing Self-efficacy, above and beyond pretest Writing Self-efficacy.

Summary

The results of national assessments such as the NAEP confirm there is a need for writing reform in the United States. In addition, the gender achievement gap in writing

continues; while this gap begins to develop in late elementary and early middle school, the trend continues into high school. In secondary schools, persuasive writing is a genre of writing that continues to be assessed through both local and standardized assessments and will only continue to be a critical area of focus with the coming of the CCSS and its push for the more sophisticated argumentation writing. As students engage in the more complex and rigorous writing genre of argumentation, it will be increasingly important that they possess the skills necessary to examine evidence, develop strong claims and counterclaims, and effectively communicate their position to others. The aims of the current research are therefore to determine: (a) whether and how self-regulated instructional strategies may help students to become more successful writers; (b) what role gender and type of writing program may play in students' writing self-efficacy.

CHAPTER TWO: REVIEW OF THE LITERATURE

To create a context for this study, the review of literature is organized into the following categories: social cognitive theory, self-efficacy, writing (including persuasive writing, writing self-efficacy, and gender and writing), self-regulation, and Self-Regulated Strategy Development (SRSD). To obtain these results, the researcher conducted a combination of searches using the Internet (Google scholar) and academic databases (EBSCO Host, ProQuest, ERIC). The following search terms were used: persuasive writing, persuasive writing achievement, self-efficacy, writing self-efficacy, self-regulation, self-regulation in writing, self-regulation and writing, self-regulated strategy development, writing instruction, process writing, and strategy instruction in writing. For all searches, only peer-reviewed journals were consulted and with the exception of seminal pieces of research, all articles were published after 1990.

Social Cognitive Theory

The way that individuals learn has been studied for decades. Beginning with constructivists such as Dewey (1938) and Bruner (1960), researchers have emphasized the influence of experience and cognition in determining what and how people learn. The Theory of Social Learning was renamed the Social Cognitive Theory (SCT) by Bandura in 1986 to emphasize the role of cognition in the learning process (Glanz, Rimer, & Lewis, 2002), taking the idea that individuals construct their own knowledge to a new level. Prior to Bandura's work, behaviorist researchers (e.g., Skinner, 1938; Watson, 1913) focused solely on cause and effect relationships, with little attention paid to the role of the learner as an active constructor of this knowledge. "Altering the rate of preexisting behavior by reinforcement was portrayed as a process wherein responses were regulated by their

immediate consequences without requiring any conscious involvement of the responders" (Bandura, 1977, p. 192). SCT diverged from this perspective by suggesting that the learner is actively engaged with his or her own learning, a stance it shares with constructivism (Bandura, 1977); however, Bandura also emphasized the importance that environment plays in shaping the individual's behavior and learning. This emphasis resulted in a paradigm shift in instructional practice that places children at the center of the educational experience, a practice that stems from a central belief in students' capabilities to influence their own learning. Pajares (2002) stated the following about SCT: "From this theoretical perspective, human functioning is viewed as the product of a dynamic interplay of personal, behavioral, and environmental influences" (para. 2).

A main tenet of SCT is the concept of reciprocal determinism, which states that an individual is active in the learning process in that his or her behavior both influences and is influenced by certain factors. More specifically, Bandura postulated that it is the interaction between the individual, the behavior, and the environment that is critical to learning (Bandura, 1986). This interaction, coined triadic reciprocality by Bandura, describes the symbiotic relationship between: (a) personal factors in the form of cognition, affect, and biological events, (b) behavior, and (c) environmental influences (Bandura, 1986). Bandura postulated that triadic reciprocality shows the inseparable nature of the person, the behavior, and the environment in creating learning (Bandura, 1986). It is this concept of triadic reciprocality that has the most direct implication for schools, because it demonstrates the need to attend to both students' emotional needs as well as their academic skills. This belief supports programs that improve the overall classroom environment and learning experiences for students (Pajares, 2008). Pajares (2002) stated, "Strategies for increasing well-being can

be aimed at improving emotional, cognitive, or motivation processes, increasing behavioral competencies, or altering the social conditions under which people live and work" (para. 3).

SCT attempts to explain how individuals acquire and maintain certain behavioral patterns while also providing the basis for intervention strategies (Bandura, 1997). SCT therefore has relevant implications in the field of education, because environmental factors such as instructional strategies may be manipulated to influence an individual's personal growth and learning. The multi-faceted importance and relevance of SCT is undeniable. Within today's schools, SCT plays a prominent role in ensuring that all children are given the opportunity to receive a valuable and meaningful education.

Self-Efficacy

Once Bandura and other proponents of SCT established the active role of the learner, it became feasible to distinguish factors that could influence the individual and his or her behavior. One such factor identified by Bandura (1986) that has influenced many areas of inquiry is the concept of self-efficacy. Self-efficacy beliefs, as defined by Bandura in 1986, are "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (p. 391). Bandura (1997) later claimed that self-efficacy had application in fields such as athletics, health, business, and international affairs. An exhaustive amount of research has been generated by the concept of self-efficacy. Bandura's research (1977, 1986) has suggested that an individual's self-efficacy can be shaped by a variety of personal, behavioral and environmental factors. Furthermore, self-efficacy has consistently been shown to have a significant influence on behavior (Schunk, 1989; Zimmerman, 2000b).

Bandura first added his concept of self-efficacy to SCT in 1977. Since then, Bandura's research and writing, especially in the field of education, has been grounded in this concept of self-efficacy. Much of the attention surrounding self-efficacy research stems from the realization that self-efficacy beliefs may have a profound impact on a person's behavior. Particularly in the field of education, it is important to realize that students' beliefs in their own academic abilities can influence their actions, and therefore, their level of academic attainment and success: "Efficacy expectations determine how much effort people will expend, and how long they will persist in the face of obstacles and aversive experiences" (Bandura, 1977, p. 80).

Self-efficacy is a concept that has been studied extensively and has been identified as a domain-specific construct, meaning that individuals may possess high self-efficacy in one field and may have lower self-efficacy in another (Zimmerman, 2000b). Therefore, a need exists for researchers to ensure that the measurement of self-efficacy fits with the context in which it is being measured. However, some common attributes tend to be shared by individuals with high-self efficacy, regardless of the context that is being studied. For example, research (Pajares, Johnson, & Usher, 2007) has demonstrated that people who are more self-efficacious view challenging tasks as situations to be mastered rather than to be avoided, and they tend to develop a stronger interest and commitment to tasks, "…because unless people believe that their actions can produce the outcome they desire, they have little incentive to act or persevere in the face of difficulties" (Pajares et al., 2007, p. 105). These behaviors may stem from a belief these individuals possess about their ability to perform well in many activities and/or situations. Of the many academic content areas in which self-efficacy has been studied, the one that is most lacking in domain-specific research is writing.

Writing

Given its place as a critical communication skill of the 21st-century, the importance of learning how to write effectively is irrefutable. To design effective writing curricula, educators must understand a variety of factors that may influence a students' ability to write in order to develop best strategies. This review of the literature section investigates the following possible influences on student writing: a) the genre of persuasive writing, b) an examination of the importance of self-efficacy and how one feels about oneself as a writer, c) the ongoing gender achievement gap in writing that plagues this country, and d) the role of self-regulation on students' writing abilities.

Persuasive Writing

In the area of writing instruction, previous research (Graham & Harris, 2000; Scardamalia & Bereiter, 1986) has found that "…skilled writing requires the acquisition and coordination of strategies for regulating the writing process…, skills for producing text…, and knowledge about specific genres, writing conventions, and so forth" (De La Paz & Graham, 2002, p. 687). According to researchers Scardamalia and Bereiter (1986), there are a few key differences between skilled writers and developing writers. One of these distinctions is that skilled writers recognize the importance of planning to the overall writing process and therefore dedicate considerable time to that practice. Another key difference is that expert writers understand editing and revising strategies and utilize these strategies to help them improve their own writing. Furthermore, Scardamalia and Bereiter (1986) note that a strong instructional program that supports planning and revising strategies, along with direct teaching and feedback from the teacher, can facilitate improvements in students' writing skills.

According to Smee (2009), persuasive writing is "taking a position and trying to get an audience to agree" (para. 6). In their empirical study of persuasive writing, researchers Nippold, Ward-Lonergan, and Fanning (2005) concluded that, "In writing a persuasive essay, the author embraces a particular point of view…and tries to convince the reader of the essay to adopt the same perspective and to perform some action…" (p. 126). In both of these definitions it is clear that writing a persuasive essay is a challenging process that requires two key tasks. Students must first be able to take a position on an issue and communicate that opinion clearly to their readers; then, students must be able to compose an essay that supports this reasoning and persuade the audience to agree with that stance. Given the complexity of persuasive writing, it becomes even more important for educators to consider how to effectively provide students with genre-specific writing instruction.

Breaking this genre of writing down even further, Graham (1990) identified the following four functional elements of a persuasive essay: a) premise, b) reasons, c) conclusion, and d) elaboration. Graham (1990, p. 785) defined these elements as follows:

a. Premise – the subject's statement of belief;
b. Reasons – explanations as to why the subject believed a particular premise;
c. Conclusion – a closing statement…a statement that brings everything together;
d. Elaboration – scored as an elaboration on a premise, reason, or a conclusion.

For the purposes of this study, persuasive writing achievement is defined as "evidence of the five dimensions (takes a clear position on the issue, supports the position with accurate and relevant information from the source materials, uses information from all of the source materials, organizes ideas logically and effectively, and expresses ideas in own words with

clarity and fluency)" (CSDE, 2006, p. 16). Persuasive writing achievement is measured by a persuasive essay rubric (Appendix A); the five components of this rubric are: (a) thesis, (b) use of support/evidence, (c) accuracy, relevancy, and development of ideas, (d) organization of response, (e) fluency of writing, and (f) conclusion.

A clear distinction must be made between persuasive writing and the more elaborate argumentative writing. The critical difference between the two styles of writing is that "…formal argument [is] a line of reasoning that attempts to prove by logic…most examples of persuasive writing aren't formal arguments. Their purpose is to persuade, not to prove by logic" (Kinneavy, 1993, p. 305). Traditionally, persuasive writing has been the genre taught to high school students with little attention paid to the true concept of argumentation. Unfortunately, this practice will not serve students well in the future—with future secondary school assessments, with college, and with career readiness: "For college and career one needs to know how to make an effective case, to make a good argument" (Hillocks, 2010, p. 25). In the 2009 publication of *College and Career Ready: Standards for Reading, Writing, and Communication*, published by the National Governor's Association Center for Best Practices and the Council of Chief State School Officers, the following is said of argumentative writing: "The ability to frame and defend an argument is particularly important to students' readiness for college and careers. The goal of making an argument is to convince an audience of the rightness of the claims being made using logical reasoning and relevant evidence" (as cited in Hillocks, 2010, p. 25).

Toulmin (1958) outlined a concept of argumentation in his seminal publication, *The Uses of Argument*. According to Toulmin, there are several key components to argumentation, the first of which is the claim. All strong arguments begin with a claim, or

thesis statement, that is based on some type of evidence or data. After the claim has been established, it is then the responsibility of the next argumentation element, the warrant, to explain how the selected evidence or data supports the established claim. Arguments are made to be challenged, whether in writing or dialogue, which necessitates some type of support for the warrants. This next of Toulmin's elements, known as the backing, prepares for any challenges to the argument ahead of time. The final two elements necessary in arguments are qualifications and counterarguments. Since nothing can ever be proven absolutely true, qualifications must exist to acknowledge the possibility of being wrong. Counterarguments or counterclaims are those statements that refute or rebut any opposing arguments or claims (Toulmin, 1958).

Persuasive writing is a genre of writing that continues to be assessed at the secondary level through both local and standardized assessments. With the coming of the CCSS, the more sophisticated argumentation writing will become the focus and secondary students will be pushed in this more rigorous direction. As students engage in the more complex writing genre of argumentation it becomes increasingly important that they have the skills necessary to examine evidence, develop strong claims and counterclaims, and ultimately, communicate their position (Toulmin, 1958). When examining these two writing genres, there are several key areas of overlap between persuasive writing and argumentative writing including strong, thoughtful thesis; position supported with well-developed ideas; cohesive, logical organization; use of transitions; and a conclusion (CSDE, 2006; Hillocks, 2010). One of the goals of this study is to provide information about how to most effectively address these common foundational writing skills with students.

Writing Self-efficacy

Self-efficacy has found application in a host of academic content areas; however, limited research exists which examines the impact of self-efficacy on writers. Also, although the research has shown a connection between writing self-efficacy and writing performance (Pajares et al., 2007), little research has been conducted on the sources of this self-efficacy.

In 1997, Bandura postulated that students adopt self-efficacy beliefs based on four sources of information: (a) mastery experience, (b) vicarious experience, (c) social persuasions, and (d) physiological and emotional states. Mastery experience refers to an individual's own previous experience with completing an academic task. This source of self-efficacy is the result of the subject's evaluation of his or her prior performance and perceived efforts at that task. Individuals who are unsure of their capabilities and those who have had little practice in a particular area often use vicarious experiences as a basis for formulating their own self-efficacy. In this case, they use their observations of others who are performing the task at hand as a source of self-efficacy. Social persuasions, or feedback from other people, can also be a source of self-efficacy for students. Lastly, students' emotional and physiological feelings while completing a task can serve as a source of self-efficacy, which act to inform students' self-beliefs in both a positive and negative direction (Bandura, 1997). The research (Anderson & Betz, 2001; Britner & Pajares, 2006; Lent, Brown, Gover, & Nijjer, 1996) that has been conducted on these four sources of self-efficacy has been concentrated in content areas other than writing and has provided inconsistent findings. One of the only findings that might be considered consistent is that mastery experiences usually have the highest predictive value over students' academic self-efficacy (Pajares et al., 2007).

The research also suggests that "the effects of the sources [of self-efficacy] have shown to differ as a function of gender" (Pajares et al., 2007, p. 108).

Using Bandura's (1997) hypothesized four sources of self-efficacy as their theoretical grounding, Pajares et al. (2007) conducted a study to examine the influence of these four factors on students' writing self-efficacy. In addition, the researchers explored how self-efficacy beliefs are formed for individuals of different genders and grade levels. The sample consisted of 1,256 primarily White students in grades 4 through 11from a middle class community in the southern United States. Of the 1,256 participants, 633 were girls and 623 were boys. There were 296 elementary students (24%), 497 middle school students (39%), and 463 high school students (37%).

Among the variables that Pajares et al. (2007) examined were sources of self-efficacy, writing self-efficacy, and gender. The researchers adapted the Sources of Self-Efficacy (Lent, Lopez, & Bieschke, 1991, as cited in Pajares et al., 2007; Lent, Lopez, Brown, & Gore, 1996, as cited in Pajares et al., 2007) scale, originally developed to measure mathematics self-efficacy, to determine sources of students' self-efficacy for writing. In addition, the Writing Skills Self-Efficacy Scale (Pajares et al., 2007) provided information about the students' own beliefs regarding their capabilities for skills specific to writing, such as grammar and mechanics. To analyze the data, researchers used multiple linear regression; the criterion variable was participants' writing self-efficacy mean sub-scale scores and the predictor variables were the four sources of self-efficacy variables (mastery experience, vicarious experience, social persuasions, physiological and emotional states). Additionally, a two-way multivariate analysis of variance (MANOVA) was conducted to investigate the gender and grade level differences for the sources of self-efficacy. For this statistical

procedure, gender and grade level served as the independent variables, while the dependent variables were the four sources of self-efficacy, writing self-efficacy, and teacher reported writing competence.

These researchers found that the four sources—mastery experience, vicarious experience, social persuasions, physiological and emotional states—were each significantly correlated ($p < .0001$) with writing self-efficacy and with each other. In terms of gender, girls reported stronger writing self-efficacy, as well as higher mastery experience, vicarious experience, and social persuasions. The regression results showed that mastery experience (β=.490), social persuasions (β=.119), and anxiety/stress (β=-.103) were all significant predictors of writing self-efficacy ($p < .0001$), while vicarious experience was not. There were no differences among the genders in terms of predicting self-efficacy for writing (Pajares et al., 2007).

Consistent with prior research (e.g., Hampton, 1998; Klassen, 2004; Usher & Pajares, 2006), the findings of Pajares et al. (2007) demonstrated that mastery experience correlates with writing self-efficacy, regardless of gender and grade level. These results suggest that educators and researchers may wish to re-examine how to structure academic tasks and situations so that students are provided with many opportunities to practice writing, for it is through this practice that individuals may develop the high level of mastery that is connected with writing self-efficacy. In addition, these results suggest that explicitly teaching writing strategies through structured writing interventions may allow students to develop the writing skills they need to be successful, which may ultimately help students build the positive experiences necessary to carry positive self-beliefs with them into future academic challenges (Pajares et al., 2007). The role of the teacher remains important to this process;

teachers monitor students' work, model how to write, and provide constructive feedback. Lastly, teachers provide opportunities for students to set goals, self-assess and self-evaluate during the writing process (Pajares et al., 2007). It is logical to conclude that writing curricula that embrace these suggestions are likely to foster the self-awareness necessary for successful writing.

Interestingly, a great deal of research (Graham & Harris, 2003; Harris et al., 2003) on writing self-efficacy has dealt with issues related to learning disabilities. When faced with repeated difficult tasks that often result in failure, students with learning problems may develop poor writing self-efficacy beliefs and shut down cognitively after losing the drive to work hard to complete a task (Harris, Graham, Mason, & Friedlander, 2008). The main contribution that this body of research involving students with learning disabilities has provided to the field of writing self-efficacy is the realization that positive writing self-efficacy is critical to writing success. This concept may now be applied to all students, those with special learning needs and those in traditional classrooms. Regardless of a student's ability level, there is a need to develop strategies that can effectively build and sustain writing self-efficacy among students (Harris et al., 2008).

Bruning, Dempsey, Kauffman, McKim, and Zumbrunn (2012) synthesized the work of prior researchers (McCarthy, Meier, & Rinderer, 1985; Pajares & Valiante, 1999; Pajares & Valiante, 2001; Shell, Colvin, & Bruning, 1995; Shell, Murphy, & Bruning, 1989) to develop their own definition of writing self-efficacy. Bruning et al. (2012) suggested that three important constructs are embedded within writing self-efficacy: (a) ideation, (b) writing conventions, and (c) self-regulation. According to these researchers (Bruning et al., 2012), ideation is the process of generating ideas during the planning and writing process. Writing

conventions include writing mechanics such as punctuation, grammar, and sentence structure, as well as the processes of students reviewing and making revisions to their written work to improve their writing. The construct of self-regulation for writing includes the need for students to employ strategies so that they may continue the writing process in the face of obstacles (Bruning et al., 2012). Bruning, Dempsey, Kauffman, McKim, & Zumbrunn, (2009) also developed an instrument, the Self-Efficacy for Writing Scale (SEWS), to measure self-efficacy for writing. The SEWS includes three subscales that represent these three distinct constructs (see Appendix B).

Writing and Gender

Pajares and Valiante (1999) conducted research to extend their previous findings on elementary-school students (1997) by exploring the correlation between self-efficacy beliefs and writing competence in middle-school boys and girls. They also investigated whether middle-school girls considered themselves to be superior writers when compared with middle-school boys, and whether writing self-efficacy differed by grade level.

The participants in the study consisted of 742 students from a public middle school in the southern United States. The sample was comprised of 376 girls and 366 boys who were primarily White middle-class students: 243 sixth graders, 237 seventh graders, and 262 eighth graders, all students in regular education classes. Researchers administered five instruments to determine students' levels of affective self-beliefs concerning writing: (a) Writing Skills Self-Efficacy scale (Pajares & Valiante, 1999), (b) Academic Self-Description Questionnaire (Marsh, 1990, as cited in Pajares & Valiante, 1999), (c) Writing Apprehension Test (Daly & Miller, 1975, as cited in Pajares & Valiante, 1999), (d) Student Attitude Questionnaire (Eccles, 1983, as cited in Pajares & Valiante, 1999), and (e) Self-Efficacy for

Self-Regulated Learning (Zimmerman et al., 1992, as cited in Pajares & Valiante, 1999). Each of these instruments demonstrated a Cronbach's Alpha of .84 or higher. In addition to these formalized instruments, students responded to six ability comparison statements about their own ability judgments when compared with their peers. Lastly, teachers rated students' writing capabilities (Pajares & Valiante, 1999).

Researchers used a multiple linear regression analysis to examine the extent to which certain factors predicted writing competence for middle-school students. For this correlational investigation, the independent variable/predictors were: writing self-efficacy, writing self-concept, writing apprehension, perceived value of writing, self-efficacy for self-regulation, previous achievement in writing, gender, and grade level. In addition, the interactions of gender by grade level, gender by self-efficacy, and grade level by self-efficacy; and the three-way interaction of gender by grade level by self-efficacy were examined. The criterion variable was writing competence.

Researchers also utilized a multivariate analysis of covariance (MANCOVA) to compare the group mean subscale scores of males and females in 6^{th}-, 7^{th}-, and 8^{th}-grade with respect to writing self-beliefs. For this causal-comparative portion of the study, the independent variables were gender, grade level, and the interaction of gender and grade level. The dependent variables were writing competence, perceived usefulness of writing, writing apprehension, writing self-concept, writing self-efficacy, self-efficacy for self-regulation, and the six ability comparisons. In addition, the MANCOVA procedure used language arts grade point average (GPA) as a covariate to control for the effects of grade level and the interaction of grade level and gender. In a similar study, researchers Middleton and Midgley (1997) had established a precedent for using a previous measure of achievement as a covariate in

determining gender differences in academic self-efficacy. Pajares and Valiante (1999) used GPA as a covariate because "Academic self-beliefs are created and developed as a result of mastery experiences with previous academic work…" (p. 396).

Results of the multiple linear regression analysis revealed that the model was significant $F(16, 725) = 45.80$, $p < .0001$, and the predictor variables explained 49% of the variation in writing competence. However, the only variable in the model that proved to be a significant predictor of writing competence was writing self-efficacy ($\beta = .190$, $p < .0001$). The remaining constructs, writing self-concept, writing apprehension, perceived value of writing, self-efficacy for self-regulation, and previously assessed achievement were also included in the analysis, but they were not found to be significant predictors of writing competence.

Among the variables studied by Pajares and Valiante (1999) in the causal-comparative portion of their study were the gender differences for the multiple dependent variables. In this case, MANCOVA results revealed a significant main effect for gender, $\lambda = .88$ (large), $F(12,724) = 8.08$; $p < .0001$. Girls ($M = 4.1$) scored significantly higher than boys ($M = 3.7$, $p < .0001$) for perceived value of writing, and girls ($M = 3.9$) also scored significantly higher than boys ($M = 3.5$, $p < .0001$) for teacher-reported writing competence. In the ability comparison portion of the study, girls ($M = 4.3$) scored significantly higher than boys ($M = 3.9$, $p < .0001$) when asked about their own beliefs regarding superiority over boys' writing abilities (Pajares & Valiante, 1999).

Although the affective writing factors of Pajares and Valiante (1999) had been explored in prior research (e.g., Eccles et al., 1989; Eisenberg, Martin, & Fabes, 1996; Wigfield, Eccles, & Pintrich, 1996), this study differed because these researchers,

"…assessed motivation constructs both at the domain level (perceived value, self-concept, apprehension) and at the task level (self-efficacy)" (p. 393), as opposed to prior studies that had only "…included motivation variables assessed at the task-specific level" (p. 393). The importance of the relationship between writing self-efficacy and writing competence was reinforced by the significant findings in this study and suggests a need for nuanced investigation into the self-beliefs of students in terms of writing ability.

Similarly, gender differences regarding self-efficacy have been studied in the past but with inconsistent results. The results of the Pajares and Valiante study (1999) suggest that, while the two genders did not differ significantly in terms of their writing self-efficacy, girls viewed themselves as superior to boys in writing ability and boys tended to agree with that assessment. There appears to be a need for additional research into why girls and boys hold these differing views and how it may impact their writing ability. Previous research (Pajares, Britner, & Valiante, 2000; Pajares & Valiante, 1997; Shell, Colvin, & Bruning, 1995), has pointed to a few possible explanations, but further studies are needed to discover the root of these beliefs.

In 2001, Pajares and Valiante extended their work to investigate reasons for these gender differences in writing beliefs. In addition to examining the same constructs from their previous study (writing self-concept, writing apprehension, perceived value of writing, and self-efficacy for self-regulation), Pajares and Valiante (2001) also explored whether beliefs regarding gender orientation influence the development of students' opinions about their own writing and about themselves as writers. The participants in this study were 497 students at a public middle school in the Northeast serving mostly middle class White students; the sample consisted of 250 girls and 247 boys. Students completed instruments that measured their

beliefs about academic writing and motivation (writing self-efficacy, writing apprehension, writing self-concept, self-efficacy for self-regulated learning, achievement goals, and value of writing) and one designed to assess gender orientation towards certain activities. Gender orientation refers to students' likeliness to identify with certain activities considered stereotypically associated with each of the genders (Pajares & Valiante, 2001). In addition, the researchers collected the language arts GPA for all participants as a measure of writing achievement.

Initially, the researchers examined correlations between boys' and girls' means on the subscales for the motivation variables (writing self-efficacy, writing apprehension, writing self-concept, self-efficacy for self-regulated learning, achievement goals, and value of writing). Researchers also investigated performance goals: "Performance goals are conceptualized in terms of an approach or avoid tendency. Students may hold performance-approach goals, such as wanting to do well to impress teachers,…or they may hold performance-avoid goals, such as wanting to do well to avoid appearing incompetent…" (Pajares & Valiante, 2001, p.370). A notable finding was that writing self-efficacy was significantly positively correlated with a performance-approach orientation for boys ($p <$ .0001, $r = .30$, moderate) but not for girls ($r = .02$). Also, writing self-efficacy was significantly negatively correlated ($p < .001$, $r = -.21$, weak) with a performance-avoidance orientation for girls, but little correlation between writing self-efficacy and performance-avoidance orientation existed for boys ($r = -.06$). Because the researchers found that performance-approach orientation has a positive correlation with self-efficacy for boys but not girls, this is an area suggested for further research regarding gender differences in writing. These results also indicate that it is important for educators to address how students

view writing, and in particular, the value that students attribute to academic writing tasks so that both genders perceive the importance of academic writing.

In addition to these bivariate correlations, the researchers also used four multiple regressions to analyze data to answer the overall research question—whether gender differences in writing achievement and motivation were due in part to gender orientation. Pajares and Valiante (2001) suggested that: (a) beliefs about motivation and self-competence were influenced by students' gender orientation while performing academic tasks; and (b) gender orientation may therefore influence achievement outcomes. The researchers found that both boys and girls tended to view writing as a feminine activity. According to their findings (Pajares & Valiante, 2001), when femininity was added to the model that included gender and masculinity, femininity helped to explain a significant amount of the variation for each of the motivation variables (R^2 increase of .08 for self-efficacy, .11 for self-concept, .13 for self-efficacy for self-regulation, .16 for value, .17 for task goal orientation, and .07 for performance-approach goal orientation). Conversely, when masculinity was added to the gender and femininity model, there were no significant increases in the motivation variables (R^2 increase of .01 for self-efficacy, negligible for self-concept, .01 for self-efficacy for self-regulation, .02 for value, .02 for task goal orientation, and .02 for performance-approach goal orientation). The findings of this research suggested that writing achievement was significantly ($p < .05$) impacted by a concept of femininity ($\beta = .125$). Pajares and Valiante (2001) suggested that, for boys to be successful at writing tasks, this prevalent belief in writing as a feminine subject needs to be ameliorated through efforts that allow all students, regardless of gender, to deepen their beliefs about the value and relevance of writing.

Self-regulation and Writing

To meet academic goals, students require some degree of awareness regarding their own academic competence (Lotkowski, Robbins, & Noeth, 2004). Zimmerman (2002) defined self-regulation as "the self-directive process by which learners transform their mental abilities into academic skills" (p. 65). Zimmerman (1990) reported that certain types of self-monitoring behaviors take place in a self-regulated learner, including goal-setting, organizational strategies, and self-evaluation. Not surprisingly, success in school frequently accompanies these types of self-regulatory behaviors (Pajares, 2008).

Reminiscent of Bandura's concept of triadic reciprocality, writing self-regulation also stresses the interaction between the person, the behavior and the environment. According to Zimmerman (2000a), successful writers who use self-regulation strategies exert control over their own planning phases through the use of pre-writing strategies, they adjust their academic surroundings to best suit their purposes throughout the writing process, and they rely on a commitment to self-monitoring and reflection aimed toward a continuous cycle of improvement. "Self-regulation is a metacognitive process that requires students to explore their thought processes to understand and evaluate the results of their actions and to plan alternative pathways to success" (Pajares, 2008, p. 118).

In their 1990 study, Zimmerman and Martinez-Pons investigated the differences in students' use of self-regulated learning strategies in relation to gender, grade level, and giftedness. Zimmerman and Martinez-Pons examined differences among 180 diverse, middle class students, half from a school for the academically gifted and half from regular education schools. Students were randomly selected to participate from each school, and the resulting sample was comprised of equal numbers of students in 5^{th}-, 8^{th}-, and 11^{th}-grades.

After obtaining parental consent, researchers arranged for student participants to be interviewed by a trained graduate student regarding their use of self-regulation strategies. Zimmerman and Martinez-Pons (1990) based these interviews on the Self-Regulated Learning Interview Schedule (SLRIS) that they developed in 1986 and subsequently tested for construct validity in 1988. Based on this work, researchers identified 14 classes of self-regulated learning strategies and assessed these through structured interviews of student participants. These structured interviews presented students with eight different classroom scenarios that each required a response indicative of which self-regulated learning strategies students would use if they were to find themselves in a similar learning situation. It is important to note that, according to prior research by Zimmerman and Martinez-Pons (1990) regarding the validity of this protocol, "…the construct validity of this interview procedure has indicated it provides significant control for the biasing effects of student verbal expressiveness and for background knowledge not associated with self-regulated learning" (p. 53). After completion of each structured interview, the interviewer administered a verbal self-efficacy scale followed by a mathematical self-efficacy scale in which students reported their own beliefs about their ability to complete verbal comprehension and mathematical problem-solving tasks. Each student was presented with 10 tasks in each area, and they reported their confidence in their ability to complete the task on a scale of 0-100. A rating of 100 indicated that they were completely sure of their ability to complete the task.

The researchers performed a MANOVA to determine if there was a main effect for gender in terms of verbal and mathematical efficacy. In this MANOVA, the independent variable was gender and the dependent variables were verbal and mathematical efficacy. Results indicated that there was a significant main effect for gender $F_{mult}(2, 167) = 4.62$, $p <$

.02, based on Wilks' Lambda multivariate criterion. Further tests revealed that boys (M = 681) scored significantly higher than girls (M = 536), $F(1, 168) = 9.12$, $p < .01$, for verbal efficacy but not for mathematical efficacy. These results stand in contrast to reports (e.g., College Board, 2012) regarding gender differences that indicate that boys generally score higher than girls in tasks that require mathematical reasoning. However, due to the self-reported nature of the data, Zimmerman and Martinez-Pons (1990) stated that this study "…could not determine if boys' and girls' self-efficacy perceptions were equally accurate. It is possible that boys' verbal may have been too optimistic or that the girls were too pessimistic" (p. 57). Since this research on differences in self-efficacy focused on students' self-reported beliefs about their own abilities, it is likely that students' own confidence levels about themselves influenced these reports. However, Zimmerman and Martinez-Pons (1990) also found that girls (M = 1.88) displayed significantly more goal-setting and planning than boys, (M = 1.56), $F(1, 168) = 6.61$, $p < .02$, and girls (M = 2.04) kept records and self-monitored significantly more frequently than boys (M = 1.50), $F(1, 168) = 15.30$, $p < .01$. These results suggest that while girls may be less self-efficacious about their writing than boys, they may be more likely to use self-regulation strategies in their academic work.

Additionally, Zimmerman and Martinez-Pons (1990) investigated how students' efficacy beliefs correlated with their own use of self-regulation strategies. Through multiple linear regression analyses, these researchers determined that students' mathematical and verbal efficacies were significantly correlated with their use of self-regulated learning strategies. In the case of verbal efficacy, students' beliefs about their own ability were significantly and positively correlated with their use of the self-regulation strategies, R^2 = .18, $F(14, 165) = 2.55$, $p < .01$. Zimmerman and Martinez-Pons also identified a significant

relationship between verbal efficacy and the strategies of reviewing notes ($\beta = .21$, $p < .01$); organizing and transforming ($\beta = .16$, $p < .05$); and seeking peer assistance ($\beta = .18$, $p < .03$).

These results suggest that students who are more verbally self-efficacious may tend to be more frequent users of self-regulation learning strategies. Interestingly, when examining trends between the two genders, these researchers found that girls tended to use more self-regulated learning strategies but continued to view themselves as less capable in the area of verbal efficacy. A need exists to further investigate this anomaly in the research. The current study attempted to further examine gender differences in terms of writing self-efficacy in the context of a writing curriculum focused on self-regulation strategies.

Given these findings, the ability to monitor one's own progress and adjust one's behavior may need to be explicitly taught and reinforced; one way to do so is through the use of process writing. Process writing focuses the teacher's and student's attention on the steps involved in the writing process, and specifically on those steps with which individual students struggle. Process writing also places students at the forefront of their own learning, "Process writing teachers provide students with opportunities for extended writing and emphasize student ownership of writing" (Harris & Graham, 1996, p. viii). The first step in encouraging students to thoroughly engage in writing as a process may be for them to take responsibility for their writing and develop those skills and strategies that will help them to improve this critical 21st century communication skill.

As schools strive to provide support for students during the writing process, they often search for the most effective methods to accomplish this goal. In some of his earliest, seminal work Bandura (1977) confirmed that "treatments combining modeling with guided participation have proved most effective in eliminating dysfunctional fears and inhibitions"

(p. 83). One such program, used in the current research, is the Self-Regulated Strategy Development (SRSD) program. "SRSD includes explicit development of critical self-regulation strategies, including goal-setting, self-instructions, self-monitoring, and self-reinforcement" (Harris et al., 2008, p. 33).

Self-regulated Strategy Development Program. Harris et al. (2006) conducted research to investigate the effectiveness of Self-regulated Strategy Development (SRSD) on writing skills of 2nd-grade students. The participants in the study were a purposeful sample of 66 students from four schools in an urban district located in Washington, D.C. Each participant was identified as a struggling writer prior to admission into the study; the researchers based this determination on both a quantitative standardized writing score and also qualitative verification from the child's classroom teacher. The sample was comprised of 26 girls and 37 boys who were primarily Black, consistent with the racial make-up of the school district. In addition, 57% of the student participants received free or reduced lunch.

The participants were randomly assigned to one of three conditions: (a) SRSD instruction only, (b) SRSD instruction plus peer support, or (c) a comparison group that received neither SRSD instruction nor formalized peer support; comparison group students participated in a Writer's Workshop model. Students in both of the treatment conditions, SRSD instruction and SRSD instruction plus peer support, were taught by graduate students who were previously trained in the implementation of the SRSD curriculum. Students in both treatment groups (with and without peer support) received instruction in general planning and goal-setting strategies, self-regulatory procedures and also writing strategies specific to two genres of writing (story writing and persuasive writing) strategies. Both treatment groups followed the six-stage process that is fundamental to the SRSD curriculum;

the only instructional variation was that in the SRSD plus peer support group, students were provided peer support through a peer support group. Students in the comparison group received writing instruction from their regular teacher using the Writers' Workshop model. This writing instruction program was already in use in the district prior to the beginning of this study.

In terms of writing development, Harris et al. (2006) were specifically concerned with examining: (a) the quality of students' writing, (b) the writing knowledge possessed by the students, (c) the motivation and effort demonstrated by the students, and (d) the perceived value of the strategies as reported by the student participants. Harris et al. (2006) utilized multiple sources and measures to obtain the data for these four areas of interest. The quality of students' writing was assessed using an 8-point holistic rating scale that had been developed by the researchers. This assessment was completed before and after the study for students' story writing and persuasive writing. In addition, students' essays were scored based on the inclusion of basic elements of persuasive writing. Students were awarded 1 point if an element was present, and they received no points if an element was missing. These elements were based on criteria obtained from the 1982 work of Scardamalia, Bereiter, and Goelman. Harris et al. (2006) obtained high scores of inter-rater reliability (ranging from .79 to .99) for all measures assessed during the study. The data collected by the researchers from the students' persuasive writing samples included: time spent planning and composing, the total number of words, the quality of the essay, and the inclusion of persuasive elements of writing.

In addition to these measures, the researchers also collected qualitative data from teacher and student participants. This included a researcher-developed instrument containing

three open-ended items designed to assess students' levels of knowledge about writing. In addition, students were interviewed at the conclusion of the study about the perceived value of the writing strategies that they had been taught. Lastly, teachers were asked to assess their students' levels of intrinsic motivation and effort before and after the study.

The results of this study indicated that SRSD writing instruction might be a powerful tool in improving the writing of second grade, struggling writers. Harris et al. (2006) utilized two-way analyses of variance (ANOVA) with two independent variables, program type conditions (SRSD instruction only, SRSD instruction plus peer support, and neither SRSD instruction nor formalized peer support) and time, to test each of the writing and motivation variables. The researchers found that for persuasive writing, students in the two treatment conditions (SRSD and SRSD with peer support) spent significantly more time planning ($p <$ .01, $d = 1.10$, large for SRSD group, $d = 1.21$, large for SRSD with peer support) than those students in the comparison (Writers' Workshop) condition. Students in the two treatment conditions also wrote significantly longer persuasive papers, $F(2, 30) = 12.77$, $p <.001$, than participants in the comparison group. However, no statistically significant differences existed between the two *treatment* conditions for either of these variables, indicating that both treatment groups performed equally well.

In terms of the number of basic persuasive elements present, the researchers found that students in both treatment conditions (SRSD and SRSD plus peer support) included significantly more persuasive elements, $F(2, 30) = 31.02$, $p < .001$ than students in the comparison group. Tests of simple main effects also revealed a statistically significant difference in the quality of the persuasive papers, $F(2, 30) = 15.94$, $p < .000$ between students

in the two treatment groups and students in the comparison group. Again, no statistically significant differences existed between the two treatment conditions.

After assessing students' writing for quality, length, planning time, and basic writing elements, Harris et al. (2006) measured students' knowledge about persuasive writing through the use of three open-ended items. These open ended items asked students about their knowledge about planning and the elements that make up stories and persuasive essays. Questions were read aloud to the participants on an individual basis. Two graduate students administered this part of the assessment and scored students' responses based on categories that were originally used by Graham, Schwartz, and MacArthur (1993). For the first question used to assess students' knowledge about planning, the four scoring categories were: a) production procedure, or the process involved with transcribing thought to writing, b) substantive process, an aspect of the writing process, c) motivation, or d) other. For the second and third questions used to assess students' knowledge of story and persuasive essay elements, the three scoring categories were: a) production procedure, related to the transcription from thought to speaking to writing, b) element, and c) other. Inter-rater reliability for these three items ranged from .70 to .94. Results of the qualitative analysis revealed that students in the two SRSD conditions demonstrated similar amounts of knowledge related to writing, and both of these treatment groups demonstrated more knowledge related to writing than students in the comparison condition. According to Harris et al. (2006), "… SRSD had a positive impact on children's knowledge about persuasive writing, but the added peer support component did not further enhance this knowledge" (p. 328).

As part of this study, researchers also asked teachers to report on students' levels of intrinsic motivation and effort. In both instances, "…SRSD instruction did not influence teachers' perceptions of these two measures of children's motivation" (Harris et al., 2006, p. 328). The final data collected by Harris et al. (2006) was reported directly from the students and summarized their qualitative observations and views regarding the strategies. The researchers reported overall positive feedback from the students in regards to the strategies and methods that were taught. Ninety-four percent of the students from the two treatment conditions (SRSD and SRSD plus peer support) indicated that they would recommend these types of strategies to their peers. Specific to the persuasive writing strategy, 88% of the participants responded favorably about indicating that "…it helped them think of parts for their papers and write better" (Harris et al., 2006, p. 329).

The overall results of the Harris et al. (2006) study suggest that SRSD instruction has a positive impact on the quality of, and knowledge about, persuasive writing. Students in the treatment classrooms were more knowledgeable about planning and spent more time planning and composing than did those students in the comparison classrooms. This study supports findings of similar studies (e.g., De La Paz, 1999, 2001; Graham, 2006) that conclude it is beneficial to "…explicitly and systematically teach struggling young writers specific strategies for carrying out writing processes such as planning" (Harris et al., 2006, p. 335). However, the participants in the Harris et al. (2006) were primarily struggling Black students on free-and-reduced lunch that attended elementary schools in an urban school district. The current study extends this research to a broader sample, specifically a middle-school population of culturally and economically diverse students. The current study also explores issues related to gender.

Although there has been some empirical research completed with secondary school students, these studies have primarily focused on special-needs populations. For example, Kiuhara, O'Neill, Hawken, and Graham (2012) examined the effectiveness of the persuasive SRSD strategy STOP, AIMS, DARE with 10th-grade students with disabilities attending a suburban high school in a western state. The purpose of the research was to ascertain what effect SRSD instruction had on the students' persuasive writing and also at what point in the intervention the impact was the most effective. The school served approximately 2,000 students representing a mostly White (89%) population with a minority of students (20%) receiving free or reduced lunch. In order to participate in this study, several criteria were established: the student received special education services, was enrolled in a study skills class, and was enrolled in a language arts class. After these criteria were met, researchers assessed students' performance on a series of standardized assessments, formative assessments, and the special education teacher's qualitative identification of the student as a struggling writer. This process resulted in six student participants, four boys and two girls. These six students had been diagnosed with a variety of special needs that included ADHD, anxiety disorders, and specific learning disabilities.

All six students were taught the persuasive planning and writing strategies—STOP, AIMS, DARE—during a study hall period; these strategies were aligned with the six-stage process that is central to Self-Regulated Strategy Development (SRSD) instruction. Kiuhara et al. (2012) developed this three-phase strategy as a more sophisticated version of an earlier two-phase strategy originally developed by De La Paz and Graham (1997). The first step, STOP (Suspend judgment, Take a side, Organize ideas, Plan more as you write), focuses on the planning process; followed by AIMS (Attract the reader's attention, Identify problem of

the topic, Map the context of the problem, State the thesis so the premise is clear) which is centered on writing a strong introductory paragraph; and lastly the strategy ends with DARE (develop your topic sentence, add supporting ideas, reject arguments for the other side, end with a conclusion), which concentrates on including the most important persuasive elements in the writing.

In terms of student performance on persuasive writing prompts, the researchers assessed the overall quality of the students' writing and also measured the number of functional persuasive writing elements present in each student's essay. Kiuhara et al. (2012) used a multiple probe design, examining student work a total of 14 times: 4 times before instruction began to establish a baseline, 7 times during the intervention period, and 3 times after the intervention period ended. A holistic rubric was used to assess the overall writing quality of the persuasive essays. Two raters read each essay and assigned a score ranging from 0-7 based on 7 anchor points established by the researchers; inter-rater reliability between the two raters was .85. Participants' scores averaged 2.38 during the baseline probe and improved to an average of 4.35 during the post-instruction assessment (Kiuhara et al., 2012).

After assessing the overall quality of the essays, the researchers turned their attention to measuring the persuasive elements present in students' writing by establishing seven elements essential to functional persuasive writing. Kiuhara et al. (2012) built on the work of De La Paz and Graham (1997) to define these functional persuasive elements as, "…directly supporting the writer's argument, whereas nonfunctional text included verbatim repetitions of text or text that was unrelated to the writer's argument" (Kiuhara et al., 2012, p. 342). Two raters, inter-rater reliability $r = .93$, independently read and scored the essays, awarding

a score of 1 if an element was present for each of the seven categories that had been established. In some cases, students included more than one example for each element, resulting in scores above 7. During the baseline, pre-assessment probes the student participants averaged 8.38. This improved to 20.86 functional persuasive elements during the post-instruction phase (Kiuhara et al., 2012).

In addition to assessing student writing for quantitative data, the researchers also investigated perceptions of these intervention strategies through the use of parent, teacher, and student questionnaires. The results of these 6-point Likert scale questionnaires about STOP, AIMS, DARE were positive—students overwhelmingly stated that their own writing had improved ($M = 5.50$, $SD = .84$), that they would encourage other students to use the strategy ($M = 5.83$, $SD = .41$), and that they would continue their use of the strategy after the intervention period ended ($M = 5.83$, $SD = .41$). Students also reported feeling more confident about their persuasive writing abilities ($M = 5.33$) and expressed a belief in the value of the writing lessons ($M = 5.67$) (Kiuhara et al., 2012).

This study was included in this review of the literature due to its relevance to the grade level and strategies used in the current study. An author of the SRSD curriculum also recommended that this study be consulted for its inclusion of the AIMS component of the persuasive writing strategies embedded in the SRSD curriculum (S. Graham, personal communication, September 27, 2012). Although the sample size for the research (Kiuhara et al., 2012) was too small to allow researchers to carry out inferential statistics, this study does show that this adapted curriculum proved beneficial for this particular sample, which provides a foundation on which to base the rationale for introducing the AIMS component into the SRSD curriculum. Lastly, although this study does not use a control group with

which to make comparisons to the participants in terms of their academic growth, it does provide a basic level of reasoning to support the possible benefits of using the SRSD curriculum with a high school population. Although this research (Kiuhara et al., 2012) did have limitations, it is precisely these limitations that the researcher of the current study hoped to address through a larger, more diverse sample and the use of inferential statistics.

De La Paz (2005) also explored the use of SRSD and its effects on the historical reasoning and persuasive writing abilities of 70 eighth graders. This study combined direct writing instruction using SRSD strategies with the explicit teaching of historical reasoning skills in historical inquiry. The participants in this study all attended the same middle school located in suburban northern California; approximately 15% of the students at the school came from low-income households. The eighth grade students attending this school represented a diverse study body: 43% Asian, 20% Caucasian, 18% Filipino, 13% Hispanic, 3% African American, and 3% Pacific Islander.

All eighth grade students in the study were assigned to one of two teams comprised of teachers from each of four core content areas—mathematics, science, social studies, and language arts. In addition, each instructional team contained a teacher who provided specialized services in either special education or English language development based on the needs of the students assigned to each team. All student participants received instruction in general education classrooms, and 85% of the students assigned to the two teams were labeled as general education students. The team comprised of general education students and students receiving special education services agreed to become the treatment group and the second team, comprised of general education students and students in need of language development agreed to become the comparison group. The treatment group consisted of 70

students and the comparison group consisted of 63 students. All 133 students were given parental consent to participate and permission to have their academic records examined as part of the study. Before instruction began, participating students from both the treatment and comparison groups completed the written expression and spelling sections of the standardized Wechsler Individual Achievement Test (WIAT), which measures the academic achievement of children. Specifically, these two selected subtests assess how well students can spell and also evaluate their ability to perform aspects of the writing process, from writing letters and words in an timely manner to the actual composition of sentences, paragraphs, and essays (Petrosky, 2009).

The researchers conducted three one-way ANOVA analyses to measure the possible differences between groups' (treatment versus comparison) performance on each measure of the WIAT. (De La Paz, 2005). Student performance on the written expression portion of the WIAT before instruction began revealed no significant differences between the groups, $F(2, 131) = 0.003$, $p = .957$ (effect size = 0.01, trivial), and the composite writing scores were also similar, $F(2, 131) = 0.289$, $p = .59$ (effect size = 0.10, trivial). The students' academic records and the results from the WIAT were used by the researcher to assist with identifying students (students with disabilities, students within the average range, students with writing talents) in terms of their writing achievement for the purposes of making comparisons among students.

In addition to the WIAT results, De La Paz (2005) provided detailed descriptions of all student participants and used additional test scores to demonstrate that both groups were comprised of similar students in terms of their ethnic background, their academic achievement, and their writing ability. Prior to the intervention, students' scores on the

Stanford 9 test were compared for both groups, and there were no statistically significant differences found between students in the treatment and comparison groups in terms of reading, $F(2, 128) = 0.022$, , $p = .88$ (effect size = 0.03, trivial); language arts $F(2, 128) = 0.045$, $p = .83$ (effect size = -0.04, trivial); or mathematics $F(2, 128) = 1.017$, $p = .315$ (effect size = -0.19, trivial). The treatment group completed pretest and posttest essays on two historical events, before and after the historical reasoning and the argumentative writing instructional units. Although the comparison group only completed the posttest essay, the essay prompt was the same as that which was used by the treatment group for either the pre- or posttest.

The intervention period of this study included 12 days of social studies instruction that covered historical reasoning and 10 days of language arts instruction that covered strategies for argumentative writing. De La Paz (2005) modified certain aspects of the instruction to better fit the needs of the student participants in this study. However, students followed the basic format of the STOP and DARE strategies from the SRSD curriculum. These strategies focused on the planning and composing phases of argumentative essays. The researchers adjusted the strategies to be more rigorous in terms of the expectations for these older middle school writers. All of the posttest essays were evaluated in terms of the following measures: essay length (number of words), persuasive quality, number of arguments, historical accuracy, and historical understanding. In terms of the overall persuasive quality of the essays, two raters independently scored the essays using a holistic persuasive writing rating scale, with a Pearson correlation of .93 for inter-rater reliability. De La Paz (2005) found that student essays from the treatment group were significantly more persuasive than those papers written by the students in the comparison group, $F(1, 131) =$

58.259, $p < .001$ (effect size = 1.19, large). The papers written by students in the treatment condition also contained significantly more arguments $F(1,131) = 50.642$, $p < .001$ (effect size = 1.17, large) than papers written by students in the comparison condition (De La Paz, 2005).

The results of De La Paz's (2005) research have relevant implications for the current study. Consistent with prior research (e.g., De La Paz, 1999; De La Paz & Graham, 2002; Harris & Graham, 1999), the De La Paz (2005) study provides additional evidence of the value of SRSD instruction. Students who are explicitly taught writing strategies, especially those for planning and composing, produce essays that are more persuasive and contain more arguments than the essays produced by students who are not taught these strategies. Additionally, the De La Paz (2005) study is valuable in that it extends SRSD research to a population of students that have not been extensively researched—middle school students in general education classes.

Summary

The way that individuals learn has been studied for as long as educational research has been conducted, and constructivism has been central to this research. Constructivism supports the idea that certain conditions are optimal for student learning to take place (Dewey, 1938; Bruner, 1960). Beginning with these constructivists, researchers began to emphasize the influence of experience in determining what and how people learn. Bandura took this idea of individuals constructing their own knowledge to a new level with his Social Cognitive Theory (SCT), which stresses the importance of the environment and its role in shaping behavior and learning. Once proponents of SCT, including Bandura, established the active role of the learner, it became feasible to distinguish factors that could influence the

person and his or her behavior. One such factor identified by Bandura and his colleagues is the concept of self-efficacy.

Self-efficacy is a person's own beliefs about their capabilities to complete certain tasks (Bandura, 1986). Furthermore, self-efficacy has consistently been shown to have a significant influence on behavior (Schunk, 1989; Zimmerman, 2000b). Writing self-efficacy has been widely researched; however, much of the research has focused on the writing self-efficacy issues faced by students with learning disabilities. Bruning et al. (2012) developed a definition of writing self-efficacy and also developed an instrument (Self-Efficacy for Writing Scale [SEWS]) to measure self-efficacy for writing. Bruning et al. (2012) suggested that three important constructs are embedded within writing self-efficacy: (a) writing conventions, (b) ideation, and (c) self-regulation.

One instructional strategy that has been developed to help students improve their own writing is called Self-Regulated Strategy Development (SRSD). Most SRSD research has focused primarily on students with special needs and/or previously identified as struggling writers (De La Paz, 1999, 2001; Graham, 2006; Harris et al., 2006; Kiuhara et al., 2012), with limited research extended to a more general sample of regular education students. The research that has been completed consistently reveals SRSD to be a positive influence on these populations. Little or no empirical research exists which examines the effectiveness of SRSD instruction for high school students in regular education classrooms. Additionally, there is a need for empirical research that examines the role of gender and self-efficacy in the context of different types of writing instruction (SRSD writing instruction or traditional writing instruction). It is this gap that the current research will fill.

CHAPTER THREE: METHODOLOGY

This chapter includes information about the research process used to examine the impact of gender and self-regulation-based writing strategies on the writing achievement and writing self-efficacy of ninth and tenth grade student participants. The research questions, hypotheses, research design, description of the setting and the participants, description of the treatment and comparison groups, instrumentation, data collection procedures, and a timeline for the research are presented.

Research Questions and Hypotheses

By using a systematic approach, this study addressed the following questions:

1. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students who participate in a Writing Instructional Program that follows a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) and those who participate in a Writing Instructional Program that follows a traditional process approach without embedded strategy instruction in writing and self-regulation (comparison)?
    a. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) students who participate in a Writing Instructional Program that follows a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) and those who participate in a Writing Instructional Program that follows a traditional process approach without embedded strategy instruction in writing and self-regulation (comparison)?

b. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students?
c. Is there a significant interaction between Writing Instructional Program and Gender?

2. To what extent and in what manner do Gender and Writing Instructional Program explain the variation in students' *posttest* Writing Self-efficacy (Conventions, Ideation, Self-regulation) above and beyond *pretest* Writing Self-efficacy (Conventions, Ideation, Self-regulation) scores?

The researcher tested the following quantitative non-directional hypotheses for research questions one and two:

1. There will be a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students who participate in a Writing Instructional Program that follows a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) and those who participate in a Writing Instructional Program that follows a traditional process approach without embedded strategy instruction in writing and self-regulation (comparison).
2. Gender and Type of Writing Program will significantly explain the variation in students' posttest Writing Self-efficacy, above and beyond pretest Writing Self-efficacy.

Research Design

The overall design of this research study was quasi-experimental in nature, with a pretest-posttest comparison group design using intact classrooms of students. Although

experimental design is identified as the most powerful type of research method (Gall, Gall, & Borg, 2007), it is difficult to utilize true random assignment when working with student populations due to their organization into intact groups (classrooms) prior to the start of any research study. "Quasi-experimental designs are used when random assignment of research participants to experimental and control groups is not possible" (Gall et al., 2007, p. 415). Therefore, a quasi-experimental design may be used as a substitute research design when using groups or classrooms of students as the unit of study rather than individuals.

A pretest-posttest compassion group design was used to compare two programs: (a) a writing instructional program that follows a modified process writing approach that contains embedded strategy instruction in writing and self-regulation (treatment), and (b) a traditional writing instructional program that follows a process writing approach without embedded strategy instruction in writing and self-regulation. Table 1 illustrates the quasi-experimental pretest-posttest comparison group design of this study.

Table 1

Description of Quasi-experimental Pretest-Posttest Comparison Group Research Design

Group	Pretest	Treatment	Posttest
Treatment	O	X	O
Comparison	O		O

(Adapted from Gall et al., 2007)

Research question one was quasi-experimental in nature and guided the investigation of whether significant differences existed between the groups on the mean scores of the persuasive writing achievement rubric. Research question two was correlational in nature, allowing the researcher to investigate possible causal relationships among multiple variables.

Description of the Setting and Participants

Setting

This study took place in a town of 18,067 people in the northeastern region of the United States reporting a median income of $87,475 in 2011 (U.S. Census Bureau, 2011). The suburban school district consisted of two elementary schools, one upper elementary school, one middle school, and one high school. According to the Strategic School Profile, student enrollment in the district was 2,970, which represents a decline of 8% over the previous 5 years (CSDE, 2012). The ethnic makeup of students attending school in the district consisted of 76.8% White, 12.7% Hispanic, 6.4% Asian-American, 2.3% Black, and 1.8% multi-racial students.

A sample of convenience was drawn from approximately 949 high school students who attended the district's only high school; this number represented a 10.7% decline in enrollment that had occurred over 5 years. Data from the 2011-2012 Strategic School Profile (SSP) showed that 15.8% of students attending the high school were eligible to receive free or reduced meals, compared to 30.7% statewide, and that 1.6% of the students received English as a second language services, compared to 3.5% statewide. Mirroring the district demographics, the ethnic breakdown of the school consisted of 78.0% White, 12.3% Hispanic, 5.9% Asian-American, and 2.6% Black students (CSDE, 2012).

Participants

Teacher participants. The high school employed six 9th-and 10th-grade social studies teachers. These social studies teachers placed a heavy emphasis on writing instruction and followed data collection processes that were easily adapted to fit the needs of this study. The school offered three academic levels of classes in each of the four core areas

of English, social studies, math, and science. For this study, only the middle academic level, level two college preparatory classes, were used. According to the school's program of studies (Anonymous, 2013), college preparatory classes offer the typical rigor and intensity of courses taken by the majority of the student body; therefore, many heterogeneously grouped students are included in this level. The other levels of classes offered at the school are: (a) Advanced Placement/Honors, which offers a more challenging, rigorous, fast-paced curriculum than the level two classes, and (b) Academic, which consists of more structured, small group classes providing specialized instruction for students whose success in the general education classroom is limited. Students are placed into these classes by teacher recommendation. The college preparatory classes of students who were participants in the current research were therefore mid-level academic achievers.

Five of the six social studies teachers who agreed to participate in this study taught a combination of the following: (a) one or more level two courses, and (b) one or more of either level one/honors courses or level three/academic courses. The sixth teacher did not teach any level two/college preparatory courses, excluding her from the study; this left five teachers who were eligible to participate. Therefore, five social studies teachers (three 9^{th}-grade and two 10^{th}-grade teachers) were invited to participate in the study. All five teachers accepted the invitation and agreed to become adult participants in the study.

These five social studies teachers taught 13 classes in total. Each of these 13 classes was randomly assigned, using a random number generator, to either a treatment (n = 7 classes) or a comparison condition (n = 6 classes). Classrooms assigned to the treatment condition implemented the Writing Intervention Program over a 16-week period in their designated classes, while classrooms in the comparison condition engaged in traditional

writing curriculum and instruction. Therefore, all but one teacher taught in *both* the treatment and comparison conditions.

All of the teacher participants were relatively new to the profession, with an average of 3 years of experience in the classroom. Refer to Table 2 for a complete breakdown of the demographic characteristics of the teacher participants. Each teacher has been assigned an identification number to maintain confidentiality of the participant.

Table 2

Demographics of Teacher Participants

Teacher	Gender	Grade Level	Classrooms in Each Condition		Years Teaching Experience	Degree (s)	Teaching Certification
			Treatment	Comparison			
9A	Female	9	2	1	3	Bachelor's – History Master's – Secondary Education	Secondary History and Social Studies
9B	Male	9	1	1	5	Bachelor's – History Master's – Secondary Education	Secondary History and Social Studies
9C	Female	9	1	1	5	Bachelor's – History and Political Science Master's – Secondary Education	Secondary History and Social Studies
10A	Female	10	1	0	1	Bachelor's – Political Science Master's – Secondary Education	Secondary History and Social Studies
10B	Female	10	2	3	3	Bachelor's – History	Secondary History and Social Studies

Student participants. The ninth and tenth grade student population consisted of approximately 486 students (255 students in grade nine and 231 students in grade ten). Of these 486 students, 275 students (158 students in grade nine and 117 in grade ten) were enrolled in level two/college preparatory social studies courses. Therefore, these level two students represented 62% of all ninth grade students and 51% of all tenth grade students; remaining ninth and tenth grade students were enrolled in other academic levels.

After obtaining permission from the Western Connecticut State University (WCSU) Institutional Review Board (IRB) (Appendix C), consent for the study was granted from the district superintendent, the building principal, and the teachers involved in the study (see Appendices D, E, and F, respectively). The researcher instructed the teachers on how to describe the study to students and trained them on the distribution and collection of parental consent forms. After parental permission forms (Appendix G) were returned, student assent forms (Appendix H) were distributed and collected. A total of 182 students were granted parental consent and agreed to participate, resulting in an overall participation rate of 66% of ninth and tenth grade level two students. Table 3 reports the participation rates for the two groups of participants.

Table 3

Treatment and Comparison Student Participation

Group	Accessible (Target)	Participants	Participation Rate (%)
Treatment			
Grade 9	92	64	70
Grade 10	56	35	63
Total	148	99	67
Comparison			
Grade 9	66	46	70
Grade 10	61	37	61
Total	127	83	65
Grand Total	275	182	66

Personal information was collected from students through the use of a self-reported demographic form that collected information on gender and ethnicity. A breakdown of reported gender is presented in Table 4. Overall, a slightly greater percentage of girls (52.9%) than boys (47.1%) participated in the study. When these numbers are examined in greater depth it is evident that while the gender breakdown was relatively equal in the treatment group (50.5% male and 49.5% female), the comparison group had greater variability in the gender characteristics. In this comparison group, there was a greater percentage of female participants, 57.3%, than there were male participants, 42.7%. See Table 4 for a breakdown of this information.

Table 4

Demographic Breakdown of Gender for Student Participants

	Percentage of Male Participants	Percentage of Female Participants
Treatment		
Grade 9	55.6	44.4
Grade 10	40.6	59.4
Total	50.5	49.5
Comparison		
Grade 9	44.4	55.6
Grade 10	40.0	60.0
Total	42.7	57.3
Grand Total	47.1	52.9

Participants' ethnicities included: 66% White, 9% Hispanic, 10% Multi-racial, 4% Asian/Pacific Islander, and 2% African American students. Overall, the treatment group participants represented a more diverse selection of ethnicities, with only 67% identifying themselves as white in the treatment group compared to 76% in the comparison group. With the exception of Asian/Pacific Islander, the treatment group represented a higher percentage of each of the other ethnic groups that were self-reported. See Table 5 for a breakdown of racial/ethnic status by group.

Table 5

Demographic Breakdown of Ethnicity for Student Participants

	White	African American	Hispanic	Asian/Pacific Islander	Native American	Multi-racial
Treatment						
Grade 9	63.5	3.2	12.7	4.8	0.0	15.8
Grade 10	75.0	3.1	9.4	3.1	3.1	6.3
Total	67.3	3.2	11.6	4.2	1.1	12.6
Comparison						
Grade 9	77.8	0.0	8.9	4.4	0.0	8.9
Grade 10	73.3	3.3	6.7	6.7	0.0	10.0
Total	76.0	1.3	8.0	5.3	0.0	9.3
Grand Total	71.2	2.3	10.0	4.7	.6	11.2

Description of the Intervention

Classrooms were randomly assigned using a random number generator to one of two conditions: (a) a treatment group that utilized a modified writing curriculum with embedded self-regulation strategies; or (b) a comparison group that utilized a traditional writing curriculum without embedded self-regulation strategies. Students in both groups received direct instruction in the mechanics and process of writing, including the basic elements of persuasive writing. However, students in the treatment condition learned about persuasive writing through a curriculum that included specific self-regulation strategies in the areas of idea generation, language conventions, and self-regulation of writing, while students in the

comparison group were taught about persuasive writing through the use of traditional direct instructional strategies and practice opportunities.

Description of the Modified Writing Curriculum—Treatment Group

The modified writing curriculum with embedded self-regulation strategies utilized by students in the treatment group was a researcher-created curriculum adapted from the Self-Regulated Strategy Development (SRSD) Program that was created by Harris and Graham (1996). The researcher designed curricula consisting of lessons that incorporated SRSD strategies that were applicable to the persuasive genre of writing. Three units were selected for this writing intervention based on: (a) the recommendation of author Steve Graham (personal communication, September 26, 2012), (b) the alignment of these three units to the dimensions of persuasive writing measured by the persuasive essay rubric (Appendix A), and (c) their alignment with the multiple dimensions of writing self-efficacy (Ideation, Conventions, and Self-regulation) as presented by Bruning et al. (2012).

Professional development. Before the intervention period began, the researcher conducted two 3-hour training workshops (Appendix I) designed to introduce the teacher participants to the SRSD curriculum and prepare them for its implementation. The researcher spent the first 3-hour session discussing the timeline for the study and important logistical information regarding critical steps and components of the SRSD curriculum. A PowerPoint presentation (Appendix J) guided this session, which also introduced teacher participants to the creators of the SRSD curriculum through the use of a video in which the authors explained the curriculum and the philosophy behind it. The second training session provided teachers with the details of the curriculum and stepped the teacher participants through each of the lessons that they would be using in their treatment classrooms. The

researcher also modeled a lesson from the SRSD curriculum using the CAPT released writing prompt *Teenagers and Gambling* (Appendix K) and presented participants with the opportunity to view a sample lesson from another school through resources available on the Internet. In addition, key differences between the modified writing curriculum with embedded self-regulation strategies and the traditional writing curriculum without embedded self-regulation strategies were highlighted through the presentation of a week-by-week pacing chart (Appendices L-M), so that all teachers were clear on how implementation of the two curricula differed for treatment and comparison classrooms.

The researcher gave all materials to participating teachers in their training binders and in electronic form via email. All materials were adapted from the work of Harris et al. (2008). A timeline (Appendix N) was also provided to teachers as a guide for each week of the intervention period. Teachers were also provided with all materials, including a detailed script and directions for the administration of the pretest Persuasive Writing and Writing Self-efficacy instruments, as well as the demographic collection information (Appendix O). All five teacher participants received a thank you note and small gift card as a token of appreciation for their willingness to be a part of the training at this first set of training workshops.

Self-regulated Strategy Development (SRSD). The SRSD curriculum is a multi-faceted approach to writing instruction that is capable of spanning all grade levels and writing genres. This flexibility places a great deal of responsibility on those implementing the curriculum to ensure that it is modified as necessary to meet the needs of individual learners. To ensure consistency when implementing the curricula, the researcher designed units that incorporated SRSD strategies applicable to the persuasive genre of writing. According to the

SRSD program, each unit follows a six-stage process (Table 6) that serves as a critical feature of all units contained within the SRSD program.

Table 6

Six-stage Process of the SRSD Program

SRSD Stage Number	SRSD Focus
Stage 1	Develop it
Stage 2	Discuss it
Stage 3	Model it
Stage 4	Memorize it
Stage 5	Support it
Stage 6	Independent performance

Curriculum in the current study was modeled after three SRSD units: (a) STOP, AIMS, DARE; (b) SCAN; and (c) PLANS (Harris et al., 2008; Kiuhara et al., 2012). See Table 7 for detailed information regarding these units. Each of these units contained five to seven lessons that students in the treatment group utilized throughout the 16-week intervention period. The researcher estimated that the SRSD curriculum would require approximately 35 class periods of approximately 57 minutes each to implement. Lessons were designed to be implemented 2 to 3 times each week throughout the 16-week intervention period. These lessons focused on the process of writing one extensive written assignment, and each stage and strategy was explicitly taught and embedded in a student-centered writing process.

Table 7

Three SRSD Units Used in Study

SRSD Unit	Acronyms Defined
STOP, AIMS, DARE	
STOP	**S**uspend judgment
	Take a side
	Organize ideas
	Plan more as you write
AIMS	**A**ttract the reader's attention
	Identify the problem of the topic so the reader understands the issues
	Map the context of the problem or provide background information needed to understand the problem
	State the thesis so the premise is clear
DARE	**D**evelop your topic sentence
	Add supporting ideas
	Reject arguments for the other side
	End with a conclusion
SCAN	Does it make **S**ense
	Is it **C**onnected to my belief
	Can you **A**dd more
	Note errors

(continued)

Table 7

Three SRSD Units Used in Study

SRSD Unit	Acronyms Defined
PLANS	**P**ick goals
	List ways to meet goals
	And make
	Notes
	Sequence notes

Throughout the 16-week intervention period, teachers had between 48-64 class periods, or approximately 2400-3200 minutes, of instructional time available to them. According to the teacher logs, the average amount of time teachers spent implementing the modified writing curriculum with embedded self-regulation strategies was approximately 1850 minutes, or 37 class periods. This translates to between 58-77% of instructional time spent focused on writing and the specific strategies of the SRSD curriculum. It is because of the rotating schedule used by this school that only a range of instructional minutes can be provided. On those days that teachers chose to focus on the modified writing curriculum with embedded self-regulation strategies, they dedicated the entire class period to this instruction. Therefore, while there were some days and weeks that were more geared towards writing, occupying 3-4 hours of instructional time, there were also weeks where writing was not as heavy a focus of instruction, resulting in only 1-2 hours of instructional time.

Three cycles of instruction served as a framework for delivery of the curriculum throughout the intervention period (see Table 8). The first cycle of instruction was designed to move at a relatively slow pace, to allow time for: (a) teachers to explicitly teach the writing skills embedded in each unit, (b) teachers to model the strategies, and (c) students to practice each strategy. The second and third cycles were then designed to move at a faster pace and focus more on the application and practice of the strategies than on the direct instruction of the strategies themselves. In addition to this shift in pacing between the three cycles of instruction, the writing tasks that students completed were also changed throughout the course of the intervention period. During the first cycle of instruction, students wrote an essay about a current issue with which they could make a personal connection after analyzing multiple texts. The second and third cycles of instruction presented students with the task of writing essays based on historical topics, which they wrote after analyzing multiple content-specific texts. The researcher purposefully chose to make the first writing task about a current issue. It was expected that this task would be simpler for students in that they would need to rely solely on reading and writing skills without the need to demonstrate the higher levels of historical thought and analysis required by the last task.

Table 8

Treatment Timeline: Three Cycles of Instruction

	Unit	SRSD Strategy	Writing Task	Lessons
Cycle 1	1	STOP, AIMS, DARE	Released CAPT Assessment A – Current Issue with Personal Connection and Analysis of Multiple Texts	Unit 1: Lessons 1-5
Cycle 1	2	SCAN	Released CAPT Assessment A – Current Issue with Personal Connection and Analysis of Multiple Texts	Unit 2: Lessons 1-7
Cycle 1	3	PLANS	Not Applicable	Unit 3: Lessons 1-7

(continued)

Table 8

Treatment Timeline: Three Cycles of Instruction

	Unit	SRSD Strategy	Writing Task	Lessons
Cycle 2	Unit 1 with embedded Unit 3	STOP, AIMS, DARE with embedded PLANS	Historical DBQ A – Content Specific with Analysis of Multiple Texts	Unit 1: Lessons 1-5 Unit 3: Lessons 1-7
Cycle 2	Unit 2 with embedded Unit 3	SCAN with embedded PLANS	Historical DBQ A – Content Specific with Analysis of Multiple Texts	Unit 2: Lessons 1-7 Unit 3: Lessons 1-7
Cycle 3	Unit 1 with embedded Unit 3	STOP, AIMS, DARE with embedded PLANS	Historical DBQ B – Content Specific with Analysis of Multiple Texts	Unit 1: Lessons 1-5 Unit 3: Lessons 1-7
Cycle 3	Unit 2 with embedded Unit 3	SCAN with embedded PLANS	Historical DBQ B – Content Specific with Analysis of Multiple Texts	Unit 2: Lessons 1-7 Unit 3: Lessons 1-7

The first unit implemented in this study—STOP, AIMS, DARE—was a sophisticated strategy for writing a persuasive essay that required the student to address both sides of an issue. This three-step strategy took teachers the longest amount of time to teach and implement during the first cycle of instruction. The first step, *STOP*, asked students to (a) *suspend* judgment, (b) *take* a side, (c) *organize* ideas, and (d) *plan* more as they write. As students then moved from planning into the writing stage, the second step of the strategy consisted of tasks embedded within the acronym *AIMS*: (a) *attract* the reader's attention, (b) *identify* the problem of the topic so the reader understands the issues, (c) *map* the context of the problem or provide background information needed to understand the problem, and (d) *state* the thesis so the premise is clear. Finally, students were taken through the writing process by following the third step, which consisted of tasks embedded within the acronym *DARE*: (a) *develop* your topic sentence, (b) *add* supporting ideas, (c) *reject* arguments for the other side, and (d) *end* with a conclusion.

For the first cycle of instruction, classrooms in the treatment received direct instruction from teachers in the STOP, AIMS, DARE strategies for approximately 6-8 classes over the course of 2 weeks of time. The complexity of this strategy required teachers to spend a significant amount of time explicitly teaching, demonstrating, modeling, and guiding students through this strategy for persuasive writing. During this first exposure to the strategy, students were presented with a released CAPT interdisciplinary writing task and asked to complete this writing assessment using these SRSD strategies. Teachers then built on this foundational knowledge of the strategy during the second and third cycle of instruction, which allowed them to spend more class time on the modeling and application of the strategies rather than the direct teaching of the steps. The comfort level of the teachers

and students with the steps of the strategy coincided with the presentation of the more complex writing tasks of the Historical Document Based Question (DBQ) Essays A and B that students completed during these latter cycles of instruction.

It is important to note that the original SRSD curriculum for persuasive writing (Harris & Graham, 1996) included only two steps, STOP and DARE. Researchers Kiuhara et al. (2012) added the middle step of AIMS when adapting the strategy for use with tenth grade students. Kiuhara et al. (2012) believed that this addition would make the strategy more appropriate for the more mature, sophisticated writers who would be found in a high school population. Refer to Appendix P for lesson materials pertaining to STOP, AIMS, DARE.

The second unit included in this research study—SCAN—was a strategy for revision of a persuasive or opinion essay. Students were required to ask themselves the following questions as they examined, thought about and revised their own writing; each step is embedded within the acronym *SCAN*: (a) does it make *sense*, (b) is it *connected* to my belief, (c) can you *add* more, and (d) *note* errors. During the intervention period's first cycle of instruction, treatment classrooms spent between 3-5 class periods learning the SCAN strategy through the six-stage process (Table 6). Students used their own essays entitled, *Metal Bats* (Appendix Q), that they had written during the STOP, AIMS, DARE unit as the object of their revision during this first cycle of instruction. During the second and third cycles of instruction, students used the Historical DBQ Essays A & B that they had written during the STOP, AIMS, DARE lessons. Refer to Appendix R for lesson materials pertaining to SCAN.

The final unit that students in this research study were exposed to was—PLANS—a goal-setting strategy applied to writing an essay. Students were encouraged to use the

following five steps to reflect on and set goals to improve their own writing; again, each step was embedded in the acronym PLANS: (a) *pick* goals, (b) *list* ways to meet goals, (c) *and* make *notes*, and (e) *sequence* notes. During the first cycle of instruction, teachers used the prepared PLANS materials to step students through the goal-setting process. This explicit instruction required between 4-6 classes to complete during this first cycle. After this direct teaching, teachers then embedded the PLANS strategies into the STOP, AIMS, DARE and SCAN units during both the second and third cycles of instruction. Refer to Appendix S for lesson materials pertaining to PLANS.

Description of the Traditional Writing Curriculum – Comparison Group

In contrast to the treatment classrooms, writing instruction in the comparison classrooms took place in isolation or out of the context of the large writing assignments that were taking place. Teachers directed the strategies that were used and determined how they were implemented. Students in the comparison classrooms received traditional instruction in the mechanics and process of writing, including the basic elements of persuasive writing. In these classrooms however, the teachers created and selected appropriate writing tasks and interventions for all students. The teacher-selected writing assignment were presented to students and the students then closely read, annotated, planned, outlined, wrote, and edited with a great deal of teacher guidance each step of the way. If necessary, teachers were also responsible for providing remediation in identified areas of student weaknesses.

On average, teachers implemented the traditional writing curriculum without embedded self-regulation strategies 1-2 times per week, usually for one-half to the whole class period. According to the teacher logs, the mean amount of time spent implementing the traditional writing curriculum without embedded self-regulation strategies was 32 class

periods, equal to1600 minutes or 50-67% of the instructional time available throughout the 16-week intervention period. Teachers utilized various forms of scaffolding such as guided questions, targeted intervention worksheets, annotated outlines, and editing materials. All materials were teacher-created with the exception of CAPT released materials (Connecticut State Board of Education, 2009) and DBQ materials that were obtained from a teacher selected text (Noonan, 1999) both of which were then modified, as needed, by the teachers.

The school that was part of this study emphasizes the use of the Gradual Release of Responsibility model of instruction (Pearson & Gallagher, 1983). This teaching model encourages educators to follow a pattern of *I do, we do, you do* throughout each lesson. According to an article by Fisher and Frey (2008), "The gradual release of responsibility model of instruction suggests that the cognitive load should shift slowly and purposefully from teacher-as-model, to joint responsibility, to independent practice and application by the learner" (p. 2). This instructional model allows the students to learn about and become familiar with the lesson's objective in the large group setting. Then, following explicit teacher instruction, teacher modeling, and whole class practice students are afforded time to practice the skill or content individually so that the objective of the lesson can be applied and demonstrated by each student (Pearson & Gallagher, 1983).

In the comparison classrooms it was typical practice for teachers to follow the gradual release of responsibility model during each of their writing lessons. Typically, a brief whole-class introduction began the class period, followed by individual and/or small-group work time when the teachers circulated and offered extra help as needed. A number of writing activities and strategies were already embedded in the social studies curriculum and were

therefore carried out in the comparison classrooms during the study. These activities and strategies included:

- Thesis writing
- Paragraph structure
- Use of transitions
- Big idea creation
- Editing/revising checklists
- Formal vs. conversational writing
- ICE responses
- Peer editing
- Essay outlines

See Appendix T for a complete list of writing activities and strategies used in the comparison classroom and Appendix U for examples of some of these materials.

One of the main features of the writing curriculum in the comparison classrooms was a focus on how to develop ideas in response to a persuasive writing prompt and then how to effectively communicate those ideas to an audience. Along those lines, the ICE method—Introduce, Cite, Explain—is a strategy taught by the English and social studies teachers in this high school. Students are taught to effectively incorporate evidence into their writing by following the steps of (a) Introduce the quote, (b) Cite the quote, and (c) Explain how it supports the topic sentence or thesis. In the comparison classrooms for this study, students were provided with instruction on the proper usage of the ICE method with persuasive writing. This was followed with practice in the usage of ICE with skill building, non-content based tasks, and curriculum embedded examples.

Another key process taught in the study school is the development of big ideas and thesis statements. A big idea is a timeless and universal theme that students are taught to develop and transform into the thesis statement for essays. Big ideas are concepts that connect to students' research topics, but are also abstract enough to apply to any time period, and are often general statements about humanity. In the comparison classrooms, students were stepped through the process of identifying one of these timeless big ideas and then encouraged to follow a set of prescribed steps to transform this into a thesis statement. The teacher provided examples at each step for the students to follow and provided a practice topic for students to work with before moving on to curriculum-based writing prompts.

Besides teaching students about the intricacies of persuasive writing and idea development, the comparison classroom teachers also spent a great deal of time teaching about sentence and paragraph structure. For example, in order to help students distinguish between formal and conversational writing, the comparison classroom teachers provided students with basic definitions of the two types of writing and reviewed the appropriate uses of each. Students then practiced these writing tips for the two styles with teacher monitoring. The comparison teachers also instructed students on how to combine simple sentences to make complex sentences. This exercise, although seemingly simple, helped students to advance their writing abilities. Again following the gradual release of responsibility model (Pearson & Gallagher, 1983), teachers in the comparison classrooms provided students with sample sentences so that they could practice this writing skill before advancing to the creation of their own sentences relevant to the content being studied in their social studies classes.

Another set of writing strategies that the comparison teachers exposed their students to revolved around how to structure paragraphs within a persuasive essay, including the use of transitions. Operating under the definition of a paragraph as a collection of related sentences dealing with a single topic, students were instructed that learning to write good paragraphs would help them as writers to stay on track during the drafting and revision stages of their writing. After reviewing elements of a paragraph, students practiced paragraph structure through the use of sample writing scenarios with teacher provided writing topics (non-discipline specific).

Students in the comparison classrooms also received direct instruction about the importance of transitions in persuasive writing. Teachers in the comparison classroom taught students that a good essay must use transitions within paragraphs and especially between paragraphs to preserve the logical flow of the essay. Students viewed teacher-created models of transitions within paragraphs and transitions between paragraphs before advancing to the writing of their own transitions within and between paragraphs. For a more detailed and thorough list of comparison classroom writing strategies, as well as examples of these materials refer to Appendices T-U.

The main difference between this traditional writing curriculum without embedded self-regulation strategies and the SRSD modified writing curriculum with embedded self-regulation strategies that was used in the treatment classrooms, is that this traditional curriculum was introduced, used to teach, and assess writing strategies in isolation from the writing tasks of the course rather than embedded within the writing process, as was the case with the SRSD curriculum.

Monitoring of Implementation of the Modified and Traditional Writing Curricula

On a weekly basis, the researcher verified how each teacher was administering the writing curricula in both the treatment and comparison classrooms. The researcher was in close proximity to the participating classrooms throughout the intervention period allowing for formal and informal monitoring of the fidelity of the treatment. In addition to the formal weekly correspondence with the teachers and informal meetings through the entire course of the study, the teachers also maintained teacher logs (Appendices V-W) throughout the implementation period. Responses provided information for the researcher regarding instruction and progress related to daily lessons.

Instrumentation

The following instruments were used to collect data in this study: (a) Persuasive Essay Rubric, (b) Self-Efficacy for Writing Scale (SEWS), (c) Researcher-developed Student and Teacher Demographic Surveys, and (d) Teacher Writing Curriculum Implementation Logs.

Persuasive Essay Rubric

Students in both the treatment and comparison classrooms completed five formal persuasive writing pieces throughout the 16-week intervention period. Students' writing samples from the first prompt (Appendix X) were scored using the Persuasive Essay Rubric (Appendix A) and the mean of these scores were used as the pretest measure of Persuasive Writing Achievement for research question one. The last writing sample (Appendix Y) was scored and the mean of these scores was used as the posttest measure of Persuasive Writing achievement for research question one. All students also completed three additional writing tasks (Appendices Q, Z-CC) during the 16-week period.

The Persuasive Essay Rubric was adapted from the state rubric used for the Connecticut Assessment of Performance Test (CAPT) and is closely aligned with the new persuasive and argumentation writing standards and expectations from the CCSS and SBAC assessments. This alignment provides support for the content and criterion validity of this instrument as a measure of Persuasive Writing Achievement for this study. The original CAPT rubric has been found to have adequate reliability, $\alpha = .802$ (Hendrawan & Wibowo, 2011), as established through the test-retest measure of internal consistency. The researcher also conducted a small pilot study after IRB approval was obtained to further confirm reliability estimates for the adapted rubric. The researcher trained 11 educators on how to score each component of the Persuasive Writing Essay Rubric. Once these educators reached agreement on how to score two representative student essays, they separately scored the same five essays from the first writing sample. Guilford's (1954) Reliability of Raters formula (see Figure 1), was used to assess the reliability of the scores that were collected from the trained group of assessors, and the results demonstrated a high reliability across raters ($r = .91$).

Guilford's Reliability of Raters

$$r_{kk} = \frac{V_p - V_e}{V_p}$$

Where:

r_{kk} = reliability for k raters

V_p = variance for persons (such as a total value for all rubrics for all people or all people's scores for 1 item on a rubric)

V_e = variance for error

Figure 1. The equation for Guilford's Reliability of Raters. Adapted from *Psychometric methods* by J.P. Guilford, 1954, p. 395.

This adapted rubric had been used consistently by the ninth and tenth grade social studies teachers in the school since 2008 to score all persuasive writing assessments. The team of five participating teachers read and scored pretest and posttest writing samples using the Persuasive Essay Rubric (see Appendix A). The team of teachers and the researcher met to standardize the process of administering, instructing, and scoring these assessments. All student identification was removed prior to scoring so that the classroom teachers were blind scoring the essays.

All essays were assessed using a double-blind scoring procedure in which teacher participants had been previously trained. This district-wide process is used each time a common assessment is scored and tracked for the purposes of data collection and analysis. A team of three to four teachers meets for an entire day and all essays for the grade level are read and scored by two staff members. The team of teachers begins the day by completing a short training session to ensure that all scorers' assessments are calibrated to the rubric and that there is an appropriate level of inter-rater reliability. The students' essays, identifiable only through student identification numbers, are distributed among team members, and each

essay is read and scored by two teachers. Raters complete the scoring process independently of each other, and the results are not shared until the scoring is completed. When the two scores for each student are revealed at the conclusion of the process, essays that received two scores that deviated by more than one point from each other are re-read and scored by a third teacher.

Student writing was evaluated on six writing components: (a) thesis, (b) use of support/evidence, (c) accuracy, relevance, and development of ideas, (d) organization of response, (e) fluency of writing, and (f) conclusion. All students were assigned a score of 1-6 for each writing component; higher scores indicated greater achievement in the writing component. All six scores were then totaled and this total score was used as the persuasive writing achievement (pretest and posttest) measure for the purposes of this study. The possible range of total scores for each student therefore varied from 6 to 36 points.

Self-Efficacy for Writing Scale

The Self-Efficacy for Writing Scale (SEWS) was administered to students as both a pretest and posttest; scores were used in the analysis of research question two. The scale is composed of 16 Likert-type scale items designed to measure self-efficacy for writing performance. The SEWS (Bruning et al., 2009) contains three subscales that measure three constructs of writing self-efficacy: Conventions (5 items), Ideation (5 items), and Self-regulation (6 items) (see Appendix B). According to the authors, the first writing dimension, ideation, is described as "generating ideas…involves writers' abilities to generate content" (Bruning et al., 2012, p. 1). The second dimension, writing conventions, is the expression of "those ideas using writing's language-related tool" (Bruning et al., 2012, p. 1), and the final dimension, writing self-regulation, involves "managing writing decisions & behaviors"

(Bruning et al., 2012, p. 1-2). During the instrument development phase of the SEWS, Bruning et al. (2012) tested the goodness of fit for a three factor model with data from high school participants and found that the fit was acceptable, $\chi^2(101) = 361.489$, $p < .001$, CFI = 0.953, RMSEA = 0.069, SRMR = 0.045.

The SEWS directs students to rate how confident they are in their ability to succeed at completing the writing related tasks that are presented by each statement. Figure 2 provides a few sample items from the instrument. The SEWS is composed of a rating scale of responses that range from *No Chance* (0) to *Complete Certainty* (100). Other response label choices are *Very Little Chance*, *50/50 Chance*, and *Very Good Chance*. Respondents are instructed that they are to select any number between 0-100 to identify their respective level of confidence with regards to the statements that are presented.

I can begin my paragraphs in the right spots.
I can think of many ideas for my writing.
I can put my ideas into writing.

Figure 2. Sample items from the SEWS by Bruning et al. 2009.

In terms of internal consistency reliability, the authors found acceptable results for the three writing components. Bruning et al. (2012) reported that Cronbach's alpha for the writing ideation subscale for a high school sample was 0.923; for the conventions subscale, $\alpha = 0.858$; and for the self-regulation subscale, $\alpha = 0.874$, all considered high for reliability findings within the social sciences (Huck, 2008). In a separate study, the authors also found high reliability results ($\alpha = .903$ for ideation, $\alpha = .847$ for conventions, and $\alpha = .884$ for self-regulation) for a sample of 697 middle school students (Bruning et al., 2012). Zheng (2012)

also reported internal consistency for all three dimensions to be $\alpha = .911$ with 133 college students.

To support the validity of this instrument for a high school population, Bruning et al. (2012) ran multiple correlations among the three subscales of the SEWS and between the subscales and other writing measures such as standardized writing achievement, self-reported writing performance and the degree to which students like writing. All correlations were significant $p < .001$ (Bruning et al., 2012), providing evidence of construct and convergent validity for the instrument. However, none of these correlations were so highly correlated to suggest that they are too closely related and therefore at risk of multicollinearity. According to Meyers et al. (2006), "As a general rule of thumb, we recommend that two variables correlated in the middle .7s or higher should probably not be used together in a regression" (p. 181). Table 9 presents the specific values of the correlations between the subscales for both of the studies conducted by Bruning et al (2012), one with middle school students (grade 8) and one with high school students (grade 11).

Table 9

Correlations between subscales of the SEWS (Bruning et al., 2012)

	Grade 8	Grade 11
SEWS Ideation and SEWS Conventions	.526	.530
SEWS Ideation and SEWS Self-regulation	.718	.707
SEWS Conventions and SEWS Self-regulation	.463	.440

After correspondence with the lead author (R. Bruning, personal communication, September 26, 2012) the researcher was granted permission to use and publish this instrument (see Appendix DD).

Student and Teacher Demographic Survey

Demographic information regarding student and teacher participants in both the treatment and comparison classrooms was collected during the initial pretest administration of the SEWS. For students, this information included teacher, gender, ethnicity, and grade level (Appendix EE). For teachers, this information included gender, years teaching, subjects taught, degrees earned, and types of teaching certifications (Appendix FF). Collecting this demographic information allowed the researcher to better understand the similarities and differences between the comparison and treatment groups. Of particular interest was students' gender, which was included as one of the independent variables for both research questions.

Teacher Curriculum Implementation Logs

For each of their assigned classes, teachers (treatment and comparison) logged descriptions of the types of teaching activities that occurred during each class and the amount of writing instruction completed during that period (see Appendices V-W). According to Gall et al. (2007), "…during the actual experiment the investigator should collect data on the experimenter's behavior to determine the congruence between behavior and treatment specifications" (p. 396). This was a critical step in ensuring the fidelity of the implementation of the treatment curriculum since all but one of the teacher participants was involved in teaching both the modified writing curriculum with embedded self-regulation strategies and the traditional writing curriculum without embedded self-regulation strategies.

Description and Justification of the Analyses

Quantitative data for research questions one and two were entered first into a Microsoft Excel file where they were organized and saved. The data were then transferred into the statistics software program SPSS (SPSS, Inc., 2009) which was used for the statistical analyses of research questions one and two.

Research Question One

Research question one was quasi-experimental in design, due to the fact that intact groups were utilized without random assignment or selection of subjects to treatment or comparison conditions. Research question one was analyzed quantitatively using a two-way analysis of variance (ANOVA), which is appropriate when comparing mean scores of individuals from two intact groups in situations involving more than one independent variable that can potentially affect the dependent variable (Gall et al., 2007). The two independent variables for the first research question were Writing Instructional Program, with two levels (treatment—modified process writing approach with embedded strategy instruction in writing and self-regulation, and comparison—traditional process writing approach without embedded strategy instruction in writing and self-regulation), and Gender with two levels (male and female). The dependent variable was students' Persuasive Writing Achievement, determined by students' mean posttest scores on the Persuasive Essay Scoring Rubric.

Pretest scores were first analyzed using a two-way ANOVA to determine if significant differences existed between the groups on the mean scores for persuasive writing achievement. These initial data analyses revealed significant differences and required the researcher to use a two-way analysis of covariance (ANCOVA) for the final analysis. The

ANCOVA procedure involved using the mean pretest persuasive writing achievement scores as the covariate in order to obtain an accurate analysis of the group differences on the persuasive writing achievement mean pretest scores. The use of an ANCOVA "…is used to control for initial differences between groups before a comparison of the within-groups variance and between-groups variance is made" (Gall et al., 2007, p.320) which helps to strengthen the overall validity of the research design by protecting against the internal threat of pre-existing differences (Gall et al., 2007). Mean posttest scores were obtained from the Persuasive Essay rubric and analyzed using a two-way ANOVA to determine if there was a significant difference on the means of these scores after the specified writing curriculum had been given to the treatment group.

Research Question Two

The design of research question two was correlational. Research question two was analyzed using a hierarchical linear regression (HLR), which is appropriate when the researcher wishes to investigate possible relationships among multiple groups of variables. By using a hierarchical multiple linear regression procedure, nested data representing different units of statistical analysis, such as those identified below as blocks of predictor variables, can be investigated in the same statistical procedure (Gall et al., 2007).

The first block of predictor variables for the second research question consisted of Writing Self-Efficacy Pretest Mean Scores (Ideation, Conventions, Writing Self-Regulation). The second block of predictor variables for the second research question were Writing Instructional Program with two levels (modified writing curriculum with embedded self-regulation strategies and traditional writing curriculum without embedded self-regulation strategies), and Gender with two levels (male and female). A hierarchical linear regression

therefore explored these analyses after controlling for Writing Self-efficacy pretest scores. The results of the HLR were examined to determine if variation in writing self-efficacy could be explained by type of writing program and gender. To minimize the possibility of making a Type I error, both research questions one and two were tested at the Bonferroni adjusted alpha level of .025, a procedure commonly employed in the social sciences when more than one research question uses the same data, to reduce the possibility of making a Type I error (Meyers, Gamst, & Guarino, 2006).

Data Collection Procedures and Timeline

The following procedures were followed according to the timeline.

1. Approval was granted by the Western Connecticut State University (WCSU) Institutional Review Board (IRB) (Appendix C) to conduct the study (December 2012).
2. Permission to conduct the study was secured from the district superintendent (Appendix D), the building principal (Appendix E), and the teachers (Appendix F) (December 2012).
3. Researcher conducted two professional development workshops lasting for 3 hours each for the teachers in the treatment group regarding the writing intervention program (January 2013).
4. Concurrent with the teacher training, parent consent and student assent forms (Appendices G-H) were distributed and collected (January 2013).
5. Research study began at the start of the second semester with the administration and scoring of the pretests and the distribution and collection of student demographic surveys (January 2013).

6. Teachers of the treatment classrooms implemented the modified writing curriculum with embedded self-regulation strategies and teachers of the comparison classrooms implemented the traditional writing curriculum without embedded self-regulation strategies (January 2013 – June 2013).
7. Teachers maintained teacher logs of classroom implementation (January 2013 – June 2013).
8. Researcher corresponded weekly with the teachers to verify fidelity of program implementation and conducted follow-up meetings with the teacher throughout the entire course of the study (January 2013 – June 2013).
9. Administration and scoring of the posttests (June 2013).
10. Data input and analysis occurred (June 2013 – February 2014).
11. Dissertation finalized (March 2014 – May 2014).

Once the Western Connecticut State University (WCSU) Institutional Review Board (IRB) approved the study in December 2012, the researcher secured initial permission for the study from the district superintendent (Appendix D) and the building principal (Appendix E) in early January of 2013. The researcher then met with the possible teacher participants to explain the details of the study and obtain their consent to be a part of the research. The research study was scheduled to begin with the start of the second semester in late January 2013. Teacher training began shortly after their agreement to participate.

The researcher conducted the training workshops during previously scheduled meeting and professional development time in mid-January 2013. Each teacher participant completed a demographic form and also received a binder of all teacher materials that were needed to implement the writing curricula. The researcher spent the first 3-hour session

reviewing the timeline for the study and important logistical information regarding the critical steps and components of the Self-Regulated Strategy Development (SRSD) curriculum. The second training session provided teachers with the details of the curriculum and stepped the teacher participants through each of the lessons that they would be using in their treatment classrooms. In addition, key differences between the modified writing curriculum with embedded self-regulation strategies and the traditional writing curriculum without embedded self-regulation strategies were highlighted so that all teachers were clear on how implementation of the two curricula differed for treatment and comparison classrooms.

All materials were provided for teachers in both their training binders and in electronic form from the researcher via email. All materials were adapted, with permission, from the work of Harris et al. (2008) and modified as necessary to meet the needs of this high school's population of students. A timeline and chart were also provided to teachers as a guide for each week of the intervention period and for each unit of study to be covered. All five teacher participants received a thank you note and small gift card as a token of appreciation for their willingness to be a part of the training at this first set of workshops.

Concurrent with the teacher training workshops, the five teachers distributed and collected parental consent forms from their participating classes following a script that had been prepared by the researcher for the distribution of these forms. After approximately one week, the researcher decided to offer an incentive to increase the number of students returning consent forms in an attempt to increase the response rate of the forms. All students in the participating classrooms were given a raffle ticket if they returned their consent form, regardless of whether or not the form indicated permission to participate or not. This raffle

ticket would then be entered into a drawing to receive an i-Tunes gift card. At the end of another week of collection with the teachers making daily reminders, again following a researcher-prepared script, the response rate reached an acceptable 66% and the collection of parental consent forms was complete.

Data collection began in January 2013 and lasted until June 2013. Before completing the pretests, each student with parental consent completed a student demographic survey and a student assent form indicating his or her willingness to participate. Then each teacher participant read a prepared script to his or her classes directing the students to complete the pretest SEWS and the pretest persuasive writing essay. The pretest SEWS were scored by the researcher, while the pretest writing assessments were scored by the teacher participants. All essays were scored using the persuasive essay rubric following a blind, double scoring procedure in which the teacher participants had been previously trained.

The intervention period of the study began the second week of February with the teachers of the treatment classrooms implementing the modified writing curriculum with embedded self-regulation strategies and teachers of the comparison classrooms implementing the traditional writing curriculum without embedded self-regulation strategies. The two writing curricula became part of the normal instruction in all classes with all students receiving writing instruction regardless of their participation in the collection of demographic information, survey data, or writing assessments for the purposes of this research. The researcher was in close proximity to the participating classrooms throughout the intervention period allowing for formal and informal monitoring of the fidelity of the treatment. In addition to formal weekly correspondence with the teachers and informal meetings through

the entire course of the study, the teachers also maintained teacher logs throughout the implementation period.

The research study concluded in June of 2013, after a 16-week intervention period, with the administration of the posttest SEWS and the posttest persuasive writing assessment. The scoring processes for these posttests were identical to that used for the pretests and were completed by the third week of June 2013. All data were then input, cleaned, and analyzed by the researcher during the summer and fall of 2013. The dissertation was written during the fall and winter of 2013 and presented in the spring of 2014.

Ethics Statement

Permission to participate in this research was sought from the district superintendent, school principal and all participating teachers. Once the school and district personnel granted their consent, parental consent and student assent were obtained for all student participants. Participation was completely voluntary and a participant could withdraw at any time. All data were collected by the researcher and stored at a different site to protect student, teacher, and school privacy. To assure confidentiality, participants were assigned a coded identification number. Data results in aggregated form only were made available to those who requested it.

CHAPTER FOUR: ANALYSIS OF DATA

The purpose of this study was to examine the impact of self-regulation writing strategies and gender on the persuasive writing achievement and writing self-efficacy of secondary school students. This chapter describes the statistical procedures that were used and presents the findings related to the research questions that guided the study. The results are presented in six sections: (a) research questions and hypotheses, (b) description of the data, (c) data coding and entry, (d) screening of the data, (e) quantitative data analysis and findings for research question one, and (f) quantitative data analysis and findings for research question two.

Research Questions and Hypotheses

By using a systematic approach, this study addressed the following questions:

1. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students who participate in a Writing Instructional Program that follows a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) and those who participate in a Writing Instructional Program that follows a traditional process approach without embedded strategy instruction in writing and self-regulation (comparison)?
    a. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) students who participate in a Writing Instructional Program that follows a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) and those who participate in a Writing Instructional Program that follows a

traditional process approach without embedded strategy instruction in writing and self-regulation (comparison)?

b. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students?

c. Is there a significant interaction between Writing Instructional Program and Gender?

2. To what extent and in what manner do Gender and Writing Instructional Program explain the variation in students' *posttest* Writing Self-efficacy (Conventions, Ideation, Self-regulation) above and beyond *pretest* Writing Self-efficacy (Conventions, Ideation, Self-regulation) scores?

The researcher tested the following quantitative non-directional hypotheses for research questions one and two:

1. There will be a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students who participate in a Writing Instructional Program that follows a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) and those who participate in a Writing Instructional Program that follows a traditional process approach without embedded strategy instruction in writing and self-regulation (comparison).
2. Gender and Type of Writing Program will significantly explain the variation in students' posttest Writing Self-efficacy, above and beyond pretest Writing Self-efficacy.

Description of the Data

The data analysis for this study utilized quantitative data obtained from the Persuasive Essay Rubric and the Self-Efficacy for Writing Scale (SEWS) (Bruning et al., 2009). The Persuasive Essay Rubric yielded a total score representative of each student's persuasive writing achievement. The SEWS produced the following three mean subscale scores: (a) conventions, (b) ideation, and (c) self-regulation, representative of the students' writing self-efficacy. Quantitative (pretest and posttest) data from the Persuasive Essay Rubric were collected for research question one and quantitative (pretest and posttest) data from the SEWS were collected for research question two. All participants were also asked to respond to a series of demographic questions, including gender, which provided the necessary information for each variable being investigated.

For research question one, the independent variables were as follows: (a) Type of Writing Instructional Program with two levels: modified and traditional, and (b) Gender, two levels: male and female. The dependent variable for research question one was Persuasive Writing Achievement, which consisted of the total scores from the Persuasive Essay Rubric. The first block of predictor variables for research question two consisted of Writing Self-efficacy pretest mean scores (Conventions, Ideation, Self-regulation) and the second block of predictor variables included (a) Writing Instructional Program, two levels: modified and traditional, and (b) Gender, two levels: male and female. For research question two, the criterion variable was comprised of the Writing Self-efficacy Posttest mean scores (Conventions, Ideation, Self-regulation).

Data Coding and Entry

All students were coded with student identification numbers to ensure participant confidentiality. In addition, a codebook of Statistical Package for the Social Sciences (SPSS) variable names and their possible values (Tables 10 through 12) was created prior to data entry to ensure that all variables contained legitimate and reasonable values (Meyers et al., 2006). Quantitative data were then entered into Microsoft Excel and transferred to the statistical package SPSS v. 18 (SPSS, Inc., 2009). The codebook was used by the researcher for consistency in entering these data into SPSS. The researcher used SPSS to calculate the total score for each student on the Persuasive Essay Rubric (pretest and posttest) by using the *compute variable SUM* feature to add each of the six individual rubric component scores together into a total score between 6-36. To calculate the mean scores for each of the three subscales of the SEWS for each student, the researcher used the SPSS *compute variable AVG* feature to determine students' mean scores for each subscale of the SEWS. The researcher also create a codebook of these computed variable names and their possible values (Table 13). No items required reverse scoring. The total rubric score and the mean SEWS scores (Conventions, Ideation, Self-regulation) were then used for the statistical analyses of research questions one and two.

Table 10

SPSS Codebook of Student Demographic Variables

Code Name	Type of SPSS Field	Assigned Values
Student ID	Numeric	10001-105219
Teacher	Numeric	1 = Teacher 9A
		2 = Teacher 9B
		3 = Teacher 9C
		4 = Teacher 10A
		5 = Teacher 10B
Class	Numeric	1 = Teacher 9A, Period 2
		2 = Teacher 9A, Period 6
		3 = Teacher 9A, Period 7
		4 = Teacher 9B, Period 6
		5 = Teacher 9B, Period 7
		6 = Teacher 9C, Period 7
		7 = Teacher 9C, Period 8
		8 = Teacher 10A, Period 1
		9 = Teacher 10B, Period 2
		10 = Teacher 10B, Period 3
		11 = Teacher 10B, Period 4
		12 = Teacher 10B, Period 7
		13 = Teacher 10B, Period 8

(continued)

Table 10

SPSS Codebook of Student Demographic Variables

Code Name	Type of SPSS Field	Assigned Values
Group	Numeric	0 = Comparison, Traditional
		1 = Treatment, Modified
Grade	Numeric	9 = Ninth Grade
		10 = Tenth Grade
		11 = Eleventh Grade
		12 = Twelfth Grade
Gender	Numeric	0 = Male
		1 = Female
Ethnicity	Numeric	1 = African American
		2 = Asian/Pacific Islander
		3 = Hispanic
		4 = Native American
		5 = White
		6 = Multi-racial

Table 11

SPSS Codebook of Pretest and Posttest Persuasive Writing Variables

Label	Code Name	Type of SPSS Field	Entered As
Thesis	PreThesis	Numeric	1-6
	PostThesis		
Support	PreSupport	Numeric	1-6
	PostSupport		
Development	PreDevelopment	Numeric	1-6
	PostDevelopment		
Organization	PreOrganization	Numeric	1-6
	PostOrganization		
Fluency	PreFluency	Numeric	1-6
	PostFluency		
Conclusion	PreConclusion	Numeric	1-6
	PostConclusion		

Table 12

SPSS Codebook of Pretest and Posttest Writing Self-efficacy Variables

SEWS Dimension	Code Name	Type of SPSS Field	Possible Values
Conventions	PreSEWSSpell	Numeric	Exact 0-100
	PostSEWSSpell		
	PreSEWSCompleteSentences	Numeric	Exact 0-100
	PostSEWSCompleteSentences		
	PreSEWSPunctuate	Numeric	Exact 0-100
	PostSEWSPunctuate		
	PreSEWSGrammar	Numeric	Exact 0-100
	PostSEWSGrammar		
	PreSEWSParagraphs	Numeric	Exact 0-100
	PostSEWSParagraphs		
Ideation	PreSEWSManyIdeas	Numeric	Exact 0-100
	PostSEWSManyIdeas		
	PreSEWSIdeas	Numeric	Exact 0-100
	PostSEWSIdeas		
	PreSEWSWords	Numeric	Exact 0-100
	PostSEWSWords		
	PreSEWSOriginalIdeas	Numeric	Exact 0-100
	PostSEWSOriginalIdeas		

(continued)

Table 12

SPSS Codebook of Pretest and Posttest Writing Self-efficacy Variables

SEWS Dimension	Code Name	Type of SPSS Field	Possible Values
Ideation	PreSEWSPlaceIdeas	Numeric	Exact 0-100
Self-regulation	PreSEWSFocus	Numeric	Exact 0-100
	PostSEWSFocus		
	PreSEWSDistractions	Numeric	Exact 0-100
	PostSEWSDistractions		
	PreSEWSQuickly	Numeric	Exact 0-100
	PostSEWSQuickly		
	PreSEWSFrustration	Numeric	Exact 0-100
	PostSEWSFrustration		
	PreSEWSGoal	Numeric	Exact 0-100
	PostSEWSGoal		
	PreSEWSDifficult	Numeric	Exact 0-100
	PostSEWSDifficult		

Table 13

SPSS Codebook of Pretest and Posttest Computed Variables

Label	Code Name	Type of SPSS Field	Possible Values
Pretest Persuasive Essay Rubric Total Score	PreTotalScore	Numeric	6-36
Posttest Persuasive Essay Rubric Total Score	PostTotalScore	Numeric	6-36
Pretest SEWS Conventions Mean Subscale Score	PreSEWSConventions	Numeric	0-100
Posttest SEWS Conventions Mean Subscale Score	PostSEWSConventions	Numeric	0-100
Pretest SEWS Ideation Mean Subscale Score	PreSEWSIdeation	Numeric	0-100
Posttest SEWS Ideation Mean Score	PostSEWSIdeation	Numeric	0-100
Pretest SEWS Self-regulation Mean Score	PreSEWSSelfReg	Numeric	0-100
Posttest SEWS Self-regulation Mean Score	PostSEWSSelfReg	Numeric	0-100

Data Screening Process

Prior to completing the data analysis, the researcher conducted a data verification process consisting of coding and cleaning (Meyers et al., 2006). "The challenge in code cleaning is to determine, for every case, whether each variable contains only legitimate numerical codes or values, and secondarily, whether these legitimate codes seem reasonable" (Meyers et al., 2006, p. 44). The researcher began the screening process with a visual inspection of the SPSS dataset to ensure that all data were complete and accurate.

Approximately 3% of the student participants did not provide gender and grade level information on the demographic forms. The researcher operated under the assumption that those individuals made a conscious decision to not provide that information. Since these data were important variables for the statistical procedures, the researcher decided to remove these students from the sample. Although a larger percentage (6%) of students did not indicate their ethnicity on the demographic forms, the researcher decided to leave this information blank because ethnicity was not required as an independent or dependent variable for either of the research questions and was only collected as supplemental demographic information to provide details about the sample. As indicated by Meyers et al. (2006), "Respondents may refuse to answer personal questions…some respondents may not be competent to respond because of a lack of knowledge regarding a particular topic" (p. 56).

Further inspection of the remaining pretest and posttest data for the variables Persuasive Writing Achievement and Writing Self-Efficacy revealed that more than 5% of these data were missing. Meyers et al. (2006) stated, "The paramount question concerning the issue of missing data is whether these missing values are a function of a random or systematic process" (p. 56) and suggested that the researcher determine whether the missing

data conform to missing at random (MAR) criteria (Meyers et al., 2006). If so, these data may be in effect be ignored and handled through the default SPSS setting of listwise deletion (Meyer et al., 2006). The researcher therefore inspected the data for patterns; no discernible patterns were evident. However, while continuing to screen the data, the researcher decided to proceed with an abundance of caution and calculated mean scores for students only if they were missing fewer than three subscale items.

Once confident that missing values would not impact or compromise data analyses, the researcher inspected frequency tables for all variables to ensure that all data were correct and within expected ranges. There were no duplicate entries or code violations found for any of the demographic variables. However, one extreme maximum violation was found on the SEWS pretest for item 15, *I can think of my writing goals before I write*, which corresponded to the Self-regulation subscale (Bruning et al., 2009). The data for this item had been inputted incorrectly as a value of 880, above the range of 0-100 for that item. The researcher inspected the original assessment, found the correct answer (80), and then entered it into the dataset. Mean scores for each student were then calculated in SPSS v. 18 (SPSS Inc., 2009) (pretest and posttest; Table 13) for the three subscales of the SEWS, and total scores for each student were calculated on the Persuasive Essay Rubric. The data were checked for compliance with statistical assumptions as described below, and then used for statistical analyses for research questions one and two.

Research Question One

Pretest Data Analysis

Research question one involved the investigation of the differences in persuasive writing scores between boys and girls and also between students who had been taught using

different writing instructional programs. To determine whether students from the two groups (treatment and comparison) varied on their persuasive writing achievement prior to the intervention, it was necessary to analyze pretest data before proceeding to the analysis of posttest data. According to Gall, Gall, and Borg (2003), "Occasionally the mean pretest scores will differ significantly by chance even when subjects have been assigned randomly to treatment groups…To adjust for initial differences in pretest means, analysis of covariance should be used" (p. 429). It is critical to the outcome of research question one that any differences between the two groups be accounted for prior to running the statistical procedures on the posttest scores in case there were differences between the two groups prior to the intervention.

Analysis of outliers. First, the researcher ran an analysis of outliers in pretest score data for the dependent variable. Meyers et al. (2006) define outliers as "cases with an extreme or unusual value on a single variable (univariate) or on a combination of variables (multivariate)" (p. 65). According to Meyers et al. (2006), an outlier may only be included in data analysis if it can be justified as being representative of the sample. If not, then the case must be removed prior to conducting any further data analysis procedures (Meyers et al., 2006).

As recommended by Meyers et al. (2006), the researcher consulted the frequency distribution of the pretest data for the Persuasive Writing Achievement Pretest variable and examined the box-and-whiskers plot for this same data by Gender and by type of Writing Instructional Program. The pretest total scores revealed three outliers, one case in the comparison group and two in the treatment group. Following the recommendation of Meyers et al. (2006), these three outliers were removed which cleaned the data and allowed for the

groups to be equivalent across both independent variables, Gender and Writing Instructional Program, prior to the start of the intervention. The resulting skewness and kurtosis values for the Persuasive Writing Achievement pretest means (n = 160) were within acceptable values of absolute 2, indicating that data were normally distributed. Skewness, kurtosis, mean and standard deviation values for the Writing Achievement pretest are presented in Table 14.

Table 14

Skewness and Kurtosis Values for Pretest Persuasive Writing Achievement

	Skewness	Kurtosis	Mean (6 – 36)	Standard Deviation
Program Type				
Comparison (n = 68)	-.39	.05	23.50	4.43
Treatment (n = 92)	-.49	.71	24.72	4.09
Gender				
Male (n = 75)	-.57	.08	23.41	4.43
Female (n = 85)	-.26	.40	24.89	4.02
Overall (n = 160)	-.46	.34	24.20	4.27

Note. Students could earn between 1-6 points in each category of the rubric, resulting in a total rubric score between 6-36 points.

Testing assumptions. Once the outliers were removed and the data adjusted to reflect these changes, the sample size became n = 160 and the assumptions were tested. According to Meyers et al. (2006), "Of special significance to multivariate analyses are the assumptions of normality, linearity, and homoscedasticity" (p. 67). In addition, Green and Salkind (2008) suggest that the assumption of independence of samples must also be met

before a two-way ANOVA can be performed. These assumptions must be met in order to ensure that the distribution of the variable resembles a normal bell curve and that none of the data are biased or distorted (Meyers et al., 2006).

Normality. As presented in Table 14, all skewness and kurtosis values were within the range of absolute 2, suggesting that data were normally distributed. To facilitate additional analysis of normality, Gall et al. (2003) have suggested that histograms and stem-and-leaf diagrams may also be used to investigate the shape and distribution of scores. After the initial analysis of outliers, a visual inspection of the histogram of the scores of the dependent variable was examined and found to be normally distributed, and the data were deemed fit for analysis.

Linearity. No curvilinear relationships were observed among the variables by the researcher's visual inspection of scatter plot graphs (Meyers et al., 2006).

Homogeneity of variance. The assumption of homoscedasticity is used to assess equal variance across the groups. In the case of a two-way ANOVA, with one dependent variable and two independent variables, this assumption is referred to as homogeneity of variance and must be checked before the statistical procedure can be run (Meyers et al., 2006). Levene's Test of Equality of Error Variance "…evaluates the assumption that the population variances for the two groups are equal" (Green & Salkind, 2008, p. 179). Therefore, the Levene's Test was utilized to check for equal population variances for all cells. The Levene's Test was not significant for either Writing Instructional Program type (p = .314) or Gender (p = .434); indicating equal variances across the groups.

Independence of samples. The final assumption, independence of samples, was met, because classrooms were randomly assigned to a group (treatment or comparison) and all

students participated in only one group (Green & Salkind, 2008). Therefore, the pretest data were considered fit for analysis because they met all assumptions.

Descriptive statistics for the pretest. In Table 15, the descriptive statistics for the pretest persuasive essay rubric scores for both independent variables, Gender (male and female) and Writing Instructional Program (comparison and treatment) are presented. The rubric is composed of six categories that represent different dimensions of persuasive writing. Students could earn between 1-6 points in each category, resulting in a total rubric score between 6-36 points.

Table 15

Descriptive Statistics for Pretest Persuasive Writing Total Rubric Scores (n = 160)

	Mean (6-36 points)	Standard Deviation	Minimum	Maximum
Program Type				
Comparison (*n* = 68)	23.50	4.43	12.00	33.00
Treatment (*n* = 92)	24.72	4.09	12.00	34.00
Gender				
Male (*n* = 75)	23.41	4.43	12.00	32.00
Female (*n* = 85)	24.89	4.02	13.00	34.00

Note. Students could earn between 1-6 points in each category of the rubric, resulting in a total rubric score between 6-36 points.

Pretest data analysis and results. The researcher conducted a 2 x 2 ANOVA to examine the effects of two Writing Instructional Programs and Gender on Persuasive Writing Achievement (pretest). The independent variables were Writing Instructional Program, with

two levels (treatment—modified process writing approach with embedded strategy instruction in writing and self-regulation, and comparison—traditional process writing approach without embedded strategy instruction in writing and self-regulation), and Gender with two levels (male and female). The dependent variable was students' Persuasive Writing Achievement, determined by students' pretest total scores on the Persuasive Essay Scoring Rubric. Because multiple analyses were conducted for this study, the researcher used an adjusted alpha level of .025 in order to reduce the risk of making a Type I error (Huck, 2012), which required that statistical analyses show significance at a level of less than .025. This alpha level of .025 represents a more stringent level than the generally accepted .05 and was obtained through a Bonferroni adjustment (.05 divided by 2) to account for multiple uses of the data (Meyers et al., 2006).

The results of the two-way ANOVA for writing pretest scores indicated that there was a significant main effect for Gender $F(1, 156) = 6.04$, $p = .015$, partial $\eta^2 = .037$ but not for Program $F(1, 156) = 4.17$, $p = .043$, partial $\eta^2 = .026$, nor was there a significant interaction between Gender and Program type $F(1, 156) = .51$, $p = .477$, partial $\eta^2 = .003$. See Table 16 for pretest two-way ANOVA results.

Table 16

ANOVA Results for Mean Pretest Scores for Persuasive Writing Achievement

Source	Type III Sum of Squares	df	Mean Squares	F	Sig.	Partial Eta Squared
Gender	106.64	1	105.64	6.04	.015	.037
Program	72.93	1	72.93	4.17	.043	.026
Gender*Program	8.90	1	8.90	.51	.477	.003

Alpha = .025 after Bonferonni adjustment

Posttest Data Analysis

Because boys' and girls' pretest Persuasive Writing Achievement scores differed significantly (p = .015), the researcher made the decision to use pretest scores as a covariate for the analysis of posttest data. An analysis of covariance (ANCOVA) is a statistical procedure that "…permits you to attribute observed gains to the effect of the experimental treatment rather than to differences in initial scores" (Gall et al., 2003, p. 429). According to Green and Salkind (2008), an ANCOVA may be used because this research study utilized both a pretest and posttest to measure all cases, the cases were randomly assigned to a group, and the groups received different treatments.

Analysis of outliers. The researcher began the analysis of posttest scores by examining the data for outliers. As recommended by Meyers et al. (2006), frequency distributions and box-and-whiskers plots of the posttest data for the Persuasive Writing Achievement posttest scores were examined by the researcher. The posttest total scores contained three outliers, all from treatment classrooms. Following the recommendation of Meyers et al. (2006), these three outliers were removed. The resulting skewness and kurtosis

values for the Persuasive Writing Achievement posttest means were then within acceptable values of absolute 2; these values are presented in Table 17.

Table 17

Skewness and Kurtosis Values for Posttest Persuasive Writing Total Rubric Scores

	Skewness	Kurtosis	Mean (6 – 36)	Standard Deviation
Program Type				
Comparison (*n* = 68)	.05	-.47	26.43	4.27
Treatment (*n* = 92)	.24	-.08	27.55	3.64
Gender				
Male (*n* = 75)	-.32	-.51	26.28	3.67
Female (*n* = 85)	.22	-.40	27.78	4.06
Overall (*n* = 160)	.06	-.22	27.07	3.94

Testing assumptions. Once the outliers were removed and the data adjusted to reflect these changes, assumptions were tested. These assumptions must be met in order to ensure that the distribution of the dependent variable is normal (resembles a normal bell curve) and that none of the data are biased or distorted (Meyers et al., 2006).

Normality. As shown in Table 18, all skewness and kurtosis values were within the +2.0 to -2.0 range, indicating the acceptable shape and distribution needed to meet the normality assumption (Hair, Anderson, Tatham, and Black, 2010). To facilitate the analysis of normality, Gall et al. (2003) have suggested that histograms and stem-and-leaf diagrams may also be used to investigate the shape and distribution of scores. A histogram was

therefore generated using SPSS v. 18 (SPSS Inc., 2009) and is presented in Figure 3. Following the initial analysis of outliers, the researcher examined the histograms of the scores of the dependent variable and found them to be normally distributed, indicating the data were deemed fit for analysis.

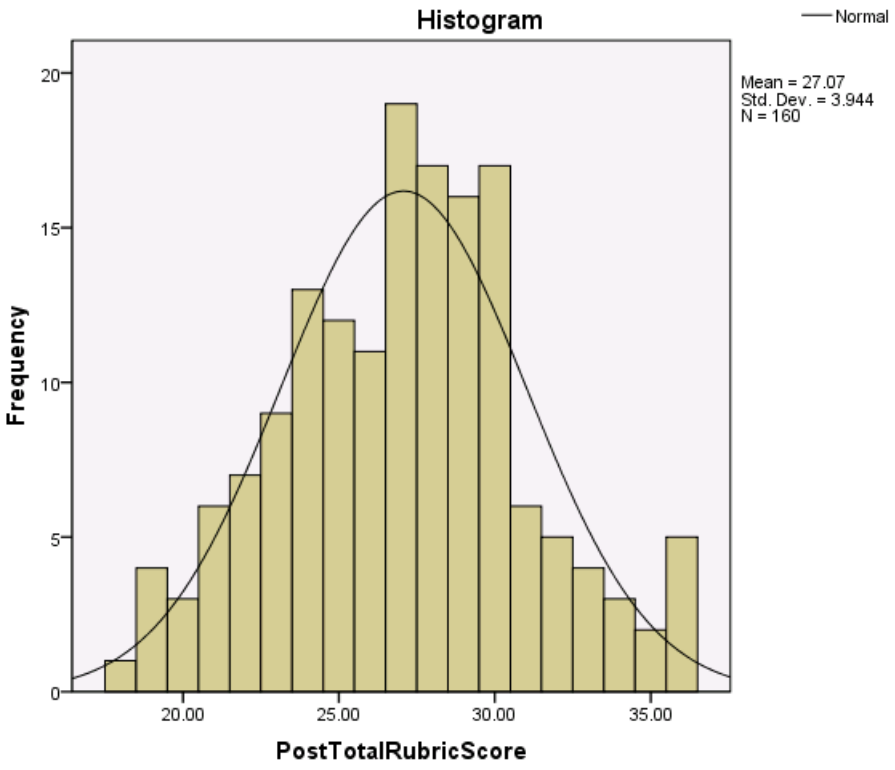

Figure 3. Histogram of the mean posttest scores of the Persuasive Essay Rubric

Linearity. No curvilinear relationships were observed among the variables by the researcher's visual inspection of scatter plot graphs (Meyers et al., 2006).

Homogeneity of variance. Following the recommendation of Green and Salkind (2008), the researcher examined the population variances of the dependent variable to ensure that they were the same for all cells by conducting a Levene's Test of Equality of Error Variance. The Levene's Test was not significant for Writing Instructional Program type or Gender; indicating no significant difference in variance across the groups.

Independence of samples. The nature of this research was such that all classrooms were randomly assigned to a group, treatment or comparison. This random assignment meant that all students participated in only one group, which allowed this study to meet the assumption, independence of samples (Green & Salkind, 2008).

Homogeneity-of-slopes. According to Green and Salkind (2008), "An assumption underlying ANCOVA is that the slopes relating the covariate to the dependent variable are the same for all groups (i.e., the homogeneity-of-slopes assumption). If this assumption is violated, then between-group differences in adjusted means are not interpretable" (p. 209). To test this fourth assumption, the researcher conducted a test of the homogeneity-of-slopes assumption. This analysis showed that the interaction between the pretest Persuasive Writing Achievement scores and Gender was not significant, indicating that the population slopes did not differ. The posttest data were therefore considered fit for analysis because they met all assumption tests.

Descriptive statistics for the posttest. The researcher ran descriptive statistics on the posttest persuasive essay rubric scores for participants according to all groupings of the two independent variables, Gender (male and female) and Writing Instructional Program (comparison and treatment). Students may receive a score of 1-6 in each of six categories of the rubric, resulting in a total score between 6-36. Table 18 presents the descriptive statistics for the posttests (n = 160) of the persuasive essay rubric for the comparison and treatment groups, as well as for male and female participants.

Table 18

Descriptive Statistics for Posttest Persuasive Writing Total Rubric Scores (n = 160)

	Mean	Standard Deviation	Minimum	Maximum
Program Type				
Comparison (*n* = 68)	26.43	4.27	18.00	36.00
Treatment (*n* = 92)	27.55	3.64	19.00	36.00
Gender				
Male (*n* = 75)	26.28	3.67	18.00	35.00
Female (*n* = 85)	27.78	4.06	19.00	36.00

Note. Descriptive statistics for the posttests (*n* = 160) of the persuasive essay rubric for the comparison and treatment groups, as well as for male and female participants.

Posttest data analysis and results. A 2 X 2 ANOVA was conducted to evaluate the effects of Writing Instructional Program and Gender on Persuasive Writing Achievement. The independent variables were Writing Instructional Program, with two levels (treatment—modified process writing approach with embedded strategy instruction in writing and self-regulation, and comparison—traditional process writing approach without embedded strategy instruction in writing and self-regulation), and Gender with two levels (male and female). The dependent variable was students' Persuasive Writing Achievement, determined by students' mean posttest scores on the Persuasive Essay Scoring Rubric.

Results of the ANCOVA indicated a significant main effect for Gender, $F(1, 156) = 5.18$, $p = .024$, partial $\eta^2 = .035$, small. The gender main effect indicated that girls ($n = 85$, $M = 27.78$, $SD = 4.06$), regardless of type of writing instruction, scored significantly higher

(p = .024, η^2 = .035, small) than boys (n = 75, M = 26.28, SD = 3.67) on Persuasive Writing Achievement. There was no significant effect for Writing Instructional Program, $F(1, 156)$ = 2.40, p = .124, partial η^2 = .016, and no significant interaction between Writing Instructional Program and Gender, $F(1, 156)$ = .02 p = .889, partial η^2 = .000. No follow-up tests were necessary since the only significant main effect was found on the dichotomous variable, Gender. The results of these analyses are presented in Table 19.

Table 19

ANCOVA Results for Mean Posttest Scores for Persuasive Writing Achievement

Source	Type III Sum of Squares	*df*	Mean Squares	*F*	Sig.	Partial Eta Squared
Gender	70.15	1	70.15	5.18	.024	.035
Program	32.49	1	32.49	2.40	.124	.016
Gender*Program	.27	1	.27	.02	.889	.000-

Alpha = .025 after Bonferonni adjustment

Research Question Two

Research question two explored the extent to which a student's gender and the type of writing instruction he or she received explained writing self-efficacy. For research question two, a hierarchical multiple linear regression (Meyers et al., 2006) was used to determine if the predictor variables of Gender and Writing Instructional Program as a block predicted the criterion variable, students' posttest mean Writing Self-efficacy Scores, after accounting for the variance predicted by students' mean pretest Writing Self-Efficacy scores. In cases when the researcher wishes to exert control over the order in which variables are entered into the regression model, it is appropriate to use a hierarchical multiple regression (Meyers et al.,

2006), which allows the researcher to enter the variables in blocks or stages, as he or she deems necessary. It is widely supported (Gall et al., 2003; Huck, 2012; Meyers et al., 2006) that the researcher reserves the right to decide if and when it is necessary to enter variables in a certain, predetermined order. Further, it is at the researcher's discretion to determine in what order said variables shall be input.

The nature of the predictor variables for research question two prompted the researcher to enter the Writing Self-efficacy (Conventions, Ideation, Self-regulation) pretest mean scores into the first block and Gender and Writing Instructional Program into the second block. Huck (2012) stated that in a hierarchical multiple linear regression, "…the independent variables that are entered first correspond with things the researcher wishes to control. After these control variables are allowed to explain as much variability in the dependent variable as they can, then the other variables are entered to see if they can contribute above and beyond the independent variables that went in first" (p. 383). In this case, the researcher wanted to control for pretest scores prior to running the statistical procedures on the posttest scores in order to account for previous differences in group abilities. It is important in the analysis of research question two that any preexisting differences in Writing Self-efficacy (Conventions, Ideation, Self-regulation) are accounted for prior to running the statistical procedures on the posttest scores so that any such differences can be eliminated as possible influences on the posttest data.

Analysis of Outliers

First, the researcher examined the frequency distribution table and the box-and-whiskers plot for the pretest and posttest Writing Self-efficacy (Conventions, Ideation, Self-regulation) mean scores to check for extreme values or outliers (Meyers et al., 2006).

Outliers should not be included in data analysis unless they are shown to be representative of the sample (Meyers et al., (2006). While the pretest mean scores revealed no outliers, the posttest data contained multiple outliers for each of the subscales. Hair et al. (2010) recommend removing outliers that are more than 2 standard deviations from the mean, and so a total of 10 outliers were removed. These outliers consisted of (a) 3 for the SEWS component Conventions, all from the treatment group; (b) 2 for SEWS Ideation, 1 from each of the two groups; and (c) 5 for SEWS Self-regulation, 3 from the treatment group and 2 from the comparison group. After the removal of these outliers, the researcher proceeded to checking the statistical assumptions of a hierarchical multiple regression procedure.

Testing Assumptions

Before the researcher moved forward with the appropriate hierarchical multiple regression analysis for research question two, all assumptions for multiple linear regression were checked. According to Meyers et al. (2006), the following assumptions must be met before running a multiple linear regression procedure: (a) normality, (b) linearity, (c) homoscedasticity, and (d) independence of the variables. Huck emphasizes the importance of checking for assumptions before proceeding with statistical analysis procedures, urging researchers to "…take the time to look at a scatter diagram as a safety maneuver to avoid misinterpretations caused by violation of assumptions" (Huck, 2012, p. 201).

Normality. To establish the normality of the posttest Writing Self-efficacy (Conventions, Ideation, Self-regulation) data, values must be normally distributed and resemble a bell curve (Meyers et al., 2006). Skewness and kurtosis values for the Writing Self-efficacy (Conventions and Ideation subscales) posttest mean scores were found to be within acceptable values of absolute 2 (Hair et al., 2010), and a visual inspection of the data

confirmed this conclusion. Therefore, the data were deemed to be normally distributed and acceptable for analysis. Skewness, kurtosis, mean and standard deviation values for these two subscales are presented in Tables 20-21. Histograms for these two Writing Self-efficacy subscales (Conventions and Ideation) are presented in Figures 4-5.

Table 20

Skewness and Kurtosis Values for Posttest Writing Self-efficacy (Conventions)

	Skewness	Kurtosis	Mean (1-100)	Standard Deviation
Program Type				
Comparison (*n* = 69)	-.82	.32	89.58	6.91
Treatment (*n* = 85)	-.75	.07	89.88	7.22
Gender				
Male (*n* = 71)	-.76	-.01	88.23	7.36
Female (*n* = 83)	-.74	.06	91.05	6.56
Overall (*n* = 154)	-.77	.13	89.75	7.06

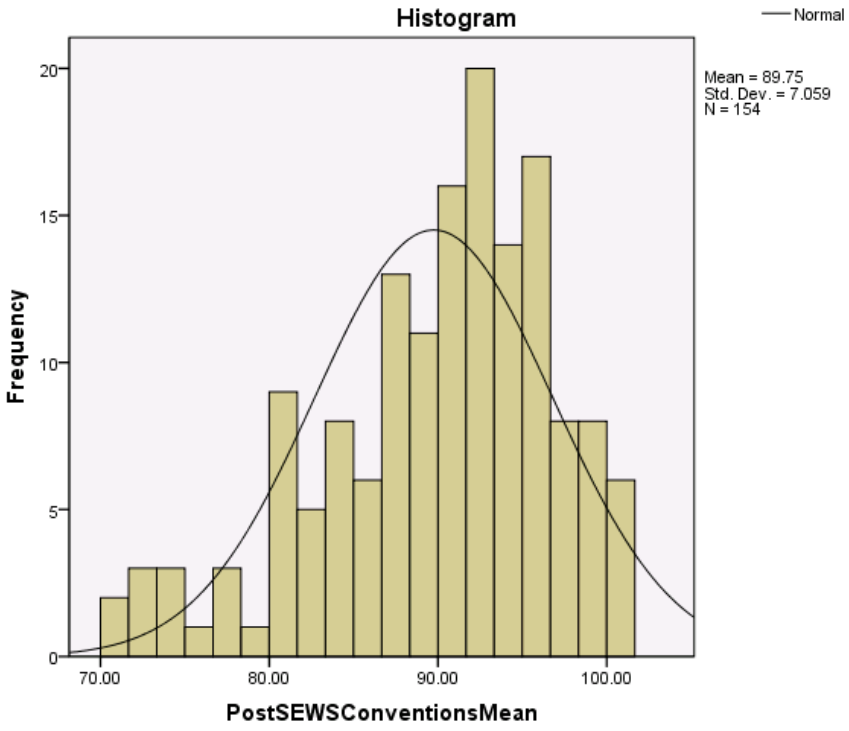

Figure 4. Histogram of the posttest scores of the mean SEWS Conventions subscale

Table 21

Skewness and Kurtosis Values for Posttest Writing Self-efficacy (Ideation)

	Skewness	Kurtosis	Mean (1-100)	Standard Deviation
Program Type				
Comparison (*n* = 69)	-1.13	1.67	83.37	10.60
Treatment (*n* = 85)	-.80	.41	84.77	10.83
Gender				
Male (*n* = 71)	-1.00	.86	83.07	10.94
Female (*n* = 83)	-.86	1.01	85.05	10.50
Overall (*n* = 154)	-.92	.90	84.14	10.72

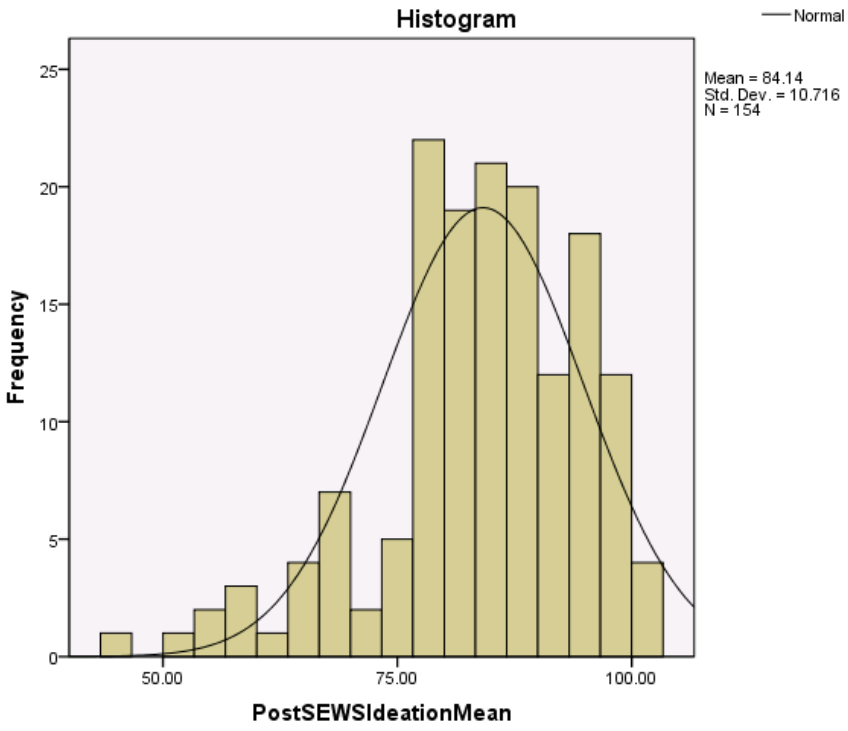

Figure 5. Histogram of the posttest scores of the mean SEWS Ideation subscale

As demonstrated by the data in Table 22 and the histogram in Figure 6, the SEWS Self-regulation subscale is slightly negatively skewed. Despite the removal of several outliers from the SEWS data, the final skewness figures remained slightly skewed. The researcher, following recommendations by Randolph and Myers (2013), decided to continue with the data analysis of this subscale for data analysis. According to Randolph and Myers (2013), "By convention, skewness statistics with absolute values greater than 1.96 deviate beyond acceptable limits of normality" (p. 49). Further evidence of the appropriateness of using these data is provided by Kline (2009), "There are no absolute standards for saying when there is so much skew or kurtosis that corrective measures should be taken, but some suggestions can be offered. Variables with absolute values of the skew index greater than 3.0 are described as 'extremely' skewed by some researchers" (p. 240). Furthermore, in an attempt to be cautious, Gall et al. (2003) recommends that "When a distribution is highly skewed…both the mean and the median should be reported" (p. 133). For this reason, median scores are included along with the other descriptive data reported for the posttest Writing Self-efficacy Self-regulation subscale in Table 22.

Table 22

Skewness and Kurtosis Values for Posttest Writing Self-efficacy (Self-regulation)

	Skewness	Kurtosis	Mean (1-100)	Median (1-100)	Standard Deviation
Program Type					
Comparison (*n* = 69)	-1.18	1.25	76.78	80.00	17.60
Treatment (*n* = 85)	-1.19	.96	81.43	86.67	15.82
Gender					
Male (*n* = 71)	-1.15	1.31	78.06	80.83	16.81
Female (*n* = 83)	-1.27	1.21	80.45	85.00	16.71
Overall (*n* = 154)	-1.19	1.15	79.35	82.58	16.75

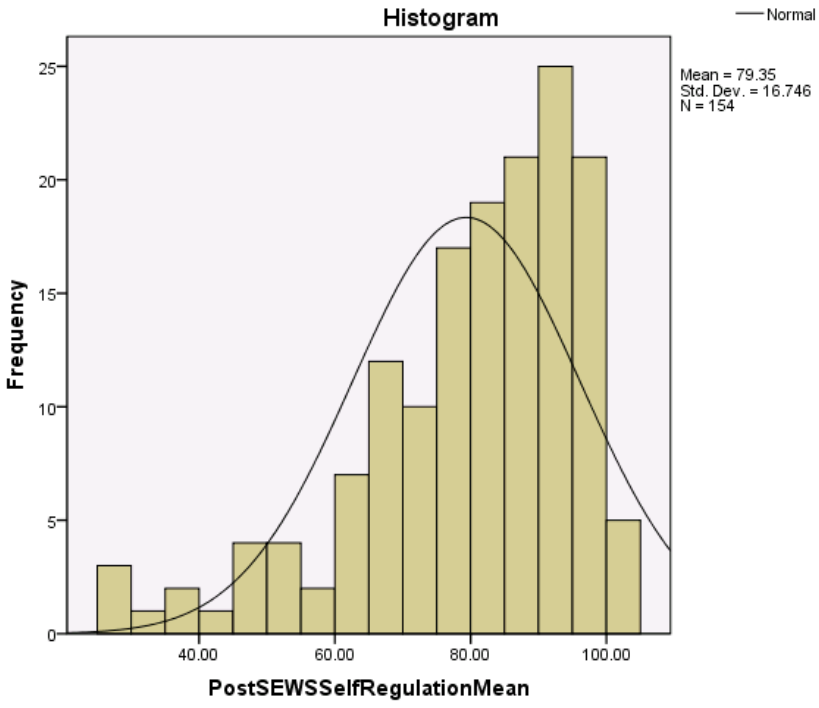

Figure 6. Histogram of the posttest scores of the mean SEWS Self-regulation subscale

Linearity. No curvilinear relationships were observed among the variables by the researcher's visual inspection of scatter plot graphs (Meyers et al., 2006).

Homoscedasticity. The assumption of homoscedasticity implies that there is equal variability among the residual errors of the dependent variable (criterion variable) across all levels of the independent variables (predictor variables). The homoscedasticity of the criterion variable was checked against all the predictor variables, and a visual inspection of the *z*-residual scatter plot graphs revealed equal variance among the residual errors. According to Meyers et al. (2006), a violation of homoscedasticity would be indicated by residual outputs that were skewed, curved, or funnel-shaped, which was not the case with these data.

Independence of the variables. To protect the integrity of a regression model, the researcher must check for and guard against multicollinearity. Multicollinearity occurs when two or more variables are highly correlated to each other (Meyers et al., 2006). The researcher checked for multicollinearity by examining the Pearson correlation, or Pearson *r*, as reported in the correlation matrix. According to Meyers et al. (2006), "As a general rule of thumb, we recommend that two variables correlated in the middle .7s or higher should probably not be used together in a regression" (p. 181).

As expected, all the means of all subscales of the SEWS were significantly correlated to each other ($p < .001$), which is to be expected because all variables were related to the measurement of self-efficacy in writing. However, variables were not overly correlated, which would mean that they did not measure separate constructs. As noted in the table, all remaining variables are correlated below the .7 level, and are in the low to moderate

acceptable range. See Table 23 for the correlation matrix for all variables in the regression analysis.

Table 23

Correlation Matrix of the Posttest Variables in the Regression Analysis

	SEWS Ideation	SEWS Conventions	SEWS Self-regulation	Program Type	Gender
SEWS Ideation		.470**	.702**	.043	.096
SEWS Conventions	.470**		.388**	.019	.164*
SEWS Self-regulation	.702**	.388**		.114	.093
Program Type	.043	.019	.114		-.015
Gender	.096	.164*	.093	-.015	

Note: * $p. \leq .05$, ** $p \leq .01$

Independence of samples. The assignment of classrooms to either treatment or comparison conditions and the fact that male and female participants did not overlap satisfied the need for independence of the samples. Assignment of participants to these discrete cells meant that all students participated in only one group (Green & Salkind, 2008).

Descriptive Statistics for SEWS Scores

The researcher ran descriptive statistics on the posttest SEWS scores for each of the two predictor variables, Gender (male and female) and Writing Instructional Program (comparison and treatment). The three subscales in the SEWS instrument were Conventions, Ideation, and Self-Regulation (Appendix B), and possible values for each of these scales ranged from 0-100. Tables 24, 25, and 26 present the descriptive statistics for the SEWS subscales Conventions, Ideation, and Self-Regulation, respectively.

Table 24

Descriptive Statistics for Posttest Writing Self-efficacy (Conventions)

	Mean	Standard Deviation	Minimum	Maximum
Program Type				
Comparison (*n* = 69)	89.58	6.91	71.00	100.00
Treatment (*n* = 85)	89.88	7.22	70.00	100.00
Gender				
Male (*n* = 71)	88.23	7.36	70.00	100.00
Female (*n* = 83)	91.05	6.56	72.00	100.00
Overall (*n* = 154)	89.75	7.06	70.00	100.00

Note. Possible values for each of the three sub scales ranged from 0-100.

Table 25

Descriptive Statistics for Posttest Writing Self-efficacy (Ideation)

	Mean	Standard Deviation	Minimum	Maximum
Program Type				
Comparison (*n* = 69)	83.37	10.60	46.40	100.00
Treatment (*n* = 85)	84.77	10.83	52.00	100.00
Gender				
Male (*n* = 71)	83.07	10.94	52.00	100.00
Female (*n* = 83)	85.05	10.50	46.40	100.00
Overall (*n* = 154)	84.14	10.72	46.40	100.00

Note. Possible values for each of the three sub scales ranged from 0-100.

Table 26

Descriptive Statistics for Posttest Writing Self-efficacy (Self-regulation)

	Mean	Standard Deviation	Minimum	Maximum
Program Type				
Comparison (*n* = 69)	76.78	17.60	25.00	100.00
Treatment (*n* = 85)	81.43	15.82	31.67	100.00
Gender				
Male (*n* = 73)	78.06	16.81	25.00	100.00
Female (*n* = 81)	80.45	16.71	28.50	100.00
Overall (*n* = 154)	79.35	16.75	25.00	100.00

Note. Possible values for each of the three sub scales ranged from 0-100.

Findings Regarding SEWS Instrumentation

The researcher compared the descriptive statistics and subscale correlations from the current research study to the work of Bruning et al. (2012) to discern any additional findings regarding the reliability of the SEWS instrument and to discover if there were any patterns of similarity amongst the findings. In the comparison of the descriptive statistics, it may be noted that in general the mean and standard deviation results are relatively similar between the current research and Bruning et al. (2012). Although the values of the mean scores do vary slightly in each study, the patterns between the subscales remain the same. For example, in each study, the mean value for the Conventions subscale is the highest of the three subscales, and the lowest mean score in each study is for the Self-regulation subscale; the mean score for Ideation falls between the two. A similar pattern is evident among the

standard deviation values for each subscale. In the case of each of the three studies, the highest standard deviation, representing the greatest amount of variability among the scores, is found in the results for the Self-regulation susbcale. Table 27 presents the descriptive statistics comparing the work of Bruning et al. (2012) with both eighth grade and eleventh grade students and the findings of the current research study, conducted with ninth and tenth grade participants.

Table 27

Descriptive Statistics SEWS Conventions, Ideation, Self-regulation

	Bruning et al., 2012: Grade 8 students, *n* = 697	Bruning et al., 2012: Grade 11 students, *n* = 563	Galbraith, 2014: Grades 9 and 10 students, *n* = 154
Ideation			
Mean	70.46	73.56	84.14
Standard Deviation	20.49	18.99	10.72
Conventions			
Mean	79.31	84.39	89.75
Standard Deviation	16.44	14.43	7.06
Self-regulation			
Mean	61.31	62.63	79.35
Standard Deviation	23.26	23.02	16.75

In reference to the subscale correlations, patterns were similarly noted between the three studies. The results of these correlations indicate that all three studies produced similar relationships among the subscales. Additionally, in all three studies, Ideation and Self-regulation are the only two subscales that are highly correlated to each other. The other subscales all have moderate correlations to each other. Table 28 presents the subscale correlations comparing the work of Bruning et al. (2012) with both eighth grade and eleventh grade students and the findings of the current research study, conducted with ninth and tenth grade participants.

Table 28

Additional Correlations SEWS Conventions, Ideation, Self-regulation

	Bruning et al. (2012) Grade 8	Bruning et al. (2012) Grade 11	Galbraith (2014) Grades 9 and 10
SEWS Ideation and SEWS Conventions	.526	.530	.470
SEWS Ideation and SEWS Self-regulation	.718	.707	.702
SEWS Conventions and SEWS Self-regulation	.463	.440	.388

Data Analysis and Results

According to Meyers et al. (2006), a hierarchical linear regression is appropriate for situations in which the researcher wishes to control the order in which variables are entered into the regression model. After all assumptions for a hierarchical linear regression were

satisfied, data were analyzed to determine the amount of variance explained by the predictor variables (Block 1—Writing Self-efficacy pretest mean scores, Block 2—Writing Instructional Program, and Gender) on the criterion variable (Writing Self-efficacy posttest mean scores). Blocks of variables were entered as predictors.

Three separate linear regressions were utilized. In each case, the first block of predictor variables consisted of SEWS *pretest* mean scores (Conventions, Ideation, or Self-regulation). The second block of predictor variables in each case were (a) Writing Instructional Program, two levels: modified and traditional, and (b) Gender, two levels: male and female. The criterion variable was Writing Self-efficacy *posttest* mean scores (Conventions, Ideation, or Self-regulation). By choosing to enter SEWS pretest mean scores in block one and Writing Instructional Program and Gender as the predictor variables in block two, the influence of Writing Instructional Program and Gender could be determined after accounting for the variance of the Writing Self-efficacy pretest mean scores.

The alpha level of research question two remained set at the .025 level in order to reflect the multiple analyses that were conducted as part of this study. In research question two, each subscale of the SEWS was analyzed independently of the others meaning that the researcher examined different criterion data for each procedure. This is why the Bonferroni adjustment was used to reduce the alpha level from the typical .05 level to the more stringent .025. This also explains why the researcher did not decide to adopt an even more conservative alpha level such as .0125 (Meyers et al., 2006).

Conventions subscale results. The first construct of Writing Self-efficacy that was examined was Conventions. The first model consisted of one block of predictor variables, Writing Self-efficacy Conventions pretest mean scores. The second model for Writing Self-

efficacy Conventions consisted of two blocks of predictor variables, (a) Writing Instructional Program, two levels: modified and traditional; and (b) Gender, two levels: male and female. The criterion variable remained Writing Self-efficacy Conventions posttest mean scores.

The results of these analyses (Tables 29, 30, and 31) indicated that Model 1 with the predictor variable, Writing Self-efficacy pretest mean scores for Conventions, accounted for a significant amount of variability in Writing Self-efficacy posttest mean scores (Conventions), $F(1, 149) = 71.41$, $p < .001$, explaining 31.9% of the variance in posttest scores. In this model, the variable pretest scores significantly predicted posttest scores, $p < .001$. When Gender and Writing Instructional Program were added as predictors in Model 2, the model improved significantly, $F(3, 147) = 28.70$, $p = .006$, and explained 35.6% of the variance in posttest scores. In this model, only Gender was a significant predictor, $p = .003$. Refer to Tables 29-31 for a summary of the data established for Writing Self-efficacy posttest means scores (Conventions).

Table 29

ANOVA for Research Question Two – Posttest Writing Self-efficacy (Conventions)

Model		Sum of Squares	*df*	Mean Square	*F*	*p*
1	Regression	2485.226	1	2485.226	71.414	.000**
	Residual	5185.254	149	34.800		
	Total	7670.480	150			
2	Regression	2833.002	3	944.334	28.696	.000**
	Residual	4837.478	147	32.908		
	Total	7670.480	150			

*$p < .01$, **$p < .001$

Table 30

Model Summary for Research Question Two – Posttest Writing Self-efficacy (Conventions)

Model	*R*	*R* square	Adjusted *R* square	Standard Error of the Estimate	*R* square change	*F* change	Sig *F* change
1	.569	.324	.319	5.899	.324	71.41	.000**
2	.608	.369	.356	5.737	.045	28.70	.006*

*$p < .01$, **$p < .001$

Table 31

Coefficients for Research Question Two – Posttest Writing Self-efficacy (Conventions)

Model	Posttest Predictor Variables	Unstandardized Coefficients		Standardized Coefficients	*T*	Sig.
		B	Standard Error	Beta		
1	(Constant)	48.517	4.862		9.980	.000**
	Pretest SEWS Conventions	.473	.056	.569	8.451	.000**
2	(Constant)	46.054	4.841		9.513	.000**
	Pretest SEWS Conventions	.475	.055	.572	8.703	.000**
	Writing Instructional Program	1.145	.947	.080	1.209	.229
	Gender	2.891	.941	.202	3.073	.003*

*$p < .01$, **$p < .001$

Ideation subscale results. For the next Writing Self-efficacy construct of Ideation, the first model consisted of one block of predictor variables, Writing Self-efficacy Ideation pretest mean scores. The second model for Writing Self-efficacy Ideation consisted of two blocks of predictor variables, (a) Writing Instructional Program, two levels: modified and traditional; and (b) Gender, two levels: male and female. The criterion variable remained Writing Self-efficacy Ideation posttest mean scores.

The results of these analyses (Tables 32, 33, 34) indicated that Model 1 with the predictor variable, Writing Self-efficacy pretest mean scores for Ideation, accounted for a significant amount of variability in Writing Self-efficacy posttest mean scores (Ideation), $F(1, 150) = 62.67$, $p < .001$, explaining 29% of the variance in posttest scores. In this model,

the variable pretest scores significantly predicted posttest scores, $p < .001$. When Gender and Writing Instructional Program were added as predictors in Model 2, the model did not improve significantly, $F(3, 148) = 21.07$, $p = .62$, and explained 28.5% of the variance in posttest scores. Refer to Tables 32-34 for a summary of the data established for Writing Self-efficacy posttest means scores (Ideation).

Table 32

ANOVA for Research Question Two – Posttest Writing Self-efficacy (Ideation)

Model		Sum of Squares	*df*	Mean Square	*F*	*p*
1	Regression	6381.204	1	6381.204	62.666	.000**
	Residual	15274.240	150	101.828		
	Total	21655.444	151			
2	Regression	6480.065	3	2160.022	21.066	.000**
	Residual	15175.379	148	102.536		
	Total	21655.444	151			

*$p < .01$, **$p < .001$

Table 33

Model Summary for Research Question Two – Posttest Writing Self-efficacy (Ideation)

Model	*R*	*R* square	Adjusted *R* square	Standard Error of the Estimate	*R* square change	*F* change	Sig *F* change
1	.543	.295	.290	10.091	.30	62.67	.000**
2	.547	.299	.285	10.126	.005	.482	.618

*$p < .01$, **$p < .001$

Table 34

Coefficients for Research Question Two – Posttest Writing Self-efficacy (Ideation)

Model	Posttest Predictor Variables	Unstandardized Coefficients		Standardized Coefficients	*T*	Sig.
		B	Standard Error	Beta		
1	(Constant)	43.172	5.057		8.537	.000**
	Pretest SEWS Ideation	.509	.064	.543	7.916	.000**
2	(Constant)	42.723	5.126		8.334	.000**
	Pretest SEWS Ideation	.502	.065	.536	7.72	.000**
	Writing Instructional Program	.138	1.676	.006	.082	.935
	Gender	1.634	1.665	.068	.982	.328

*$p < .01$, **$p < .001$

Self-regulation subscale results. The final construct of Writing Self-efficacy, Self-regulation, was analyzed in a similar fashion to the previous two subscales. The first model consisted of one block of predictor variables, Writing Self-efficacy Self-regulation pretest mean scores. The second model for Writing Self-efficacy Self-regulation consisted of two blocks of predictor variables, (a) Writing Instructional Program, two levels: modified and traditional; and (b) Gender, two levels: male and female. The criterion variable remained Writing Self-efficacy Self-regulation posttest mean scores.

The results of these analyses (Table 35, 36, and 37) indicated that Model 1 with the predictor variable, Writing Self-efficacy pretest mean scores for Self-regulation, accounted for a significant amount of variability in Writing Self-efficacy posttest mean scores (Self-

regulation), $F(1, 147) = 146.50$, $p < .001$, explaining 49.6% of the variance in posttest scores. In this model, the variable pretest scores significantly predicted posttest scores, $p < .001$. When Gender and Writing Instructional Program were added as predictors in Model 2, the model did not improve significantly, $F(3, 145) = 49.58$, $p = .350$, and still explained only 49.6% of the variance in posttest scores. Refer to Tables 35-37 for a summary of the data established for Writing Self-efficacy posttest means scores (Self-regulation).

Table 35

ANOVA for Research Question Two – Posttest Writing Self-efficacy (Self-regulation)

Model		Sum of Squares	*df*	Mean Square	*F*	*p*
1	Regression	24357.283	1	24357.283	146.498	.000**
	Residual	24440.754	147	166.264		
	Total	48798.038	148			
2	Regression	24708.818	3	8236.273	49.577	.000**
	Residual	24089.220	145	166.133		
	Total	48798.038	148			

*$p < .01$, **$p < .001$

Table 36

Model Summary for Research Question Two – Posttest Writing Self-efficacy (Self-regulation)

Model	*R*	*R* square	Adjusted *R* square	Standard Error of the Estimate	*R* square change	*F* change	Sig *F* change
1	.707	.499	.496	12.894	.499	146.498	.000*
2	.712	.506	.496	12.889	.007	1.058	.350

*$p < .01$, **$p < .001$

Table 37

Coefficients for Research Question Two – Posttest Writing Self-efficacy (Self-regulation)

Model	Posttest Predictor Variables	Unstandardized Coefficients		Standardized Coefficients	*T*	Sig.
		B	Standard Error	Beta		
1	(Constant)	30.314	4.050		7.486	.000**
	Pretest SEWS Self-regulation	.685	.057	.707	12.104	.000**
2	(Constant)	28.643	4.208		6.807	.000**
	Pretest SEWS Self-regulation	.672	.057	.694	11.744	.000**
	Writing Instructional Program	2.521	2.151	.069	1.172	.243
	Gender	1.989	2.139	.055	.930	.354

*$p < .01$, **$p < .001$

Findings from Teacher Logs

As part of the instrumentation for this study, teacher participants completed curriculum implementation logs for both the treatment and comparison classrooms. The teacher logs allowed for the documentation of the learning activities and assessments that took place in each of the participating classrooms. In addition to ensuring the fidelity of the implementation of the two writing curricula, the logs reported information about the what occurred in each setting which can in turn help to explain some of the findings and implications of this research. Although not a qualitative or mixed methods study, the researcher was able to consult the logs to look for patterns and help to triangulate the other findings of the study. The logs were another source of data that provided additional evidence

and reasoning to support the implications of this research for educators and the suggestions for future researchers.

Teacher logs detailed the writing strategies that were implemented in each class, the amount of time spent on the respective curriculum in each group, and student reactions to the lessons. It may be seen in the teacher logs that both the treatment and comparison classroom teachers dedicated over 50% of instructional time over the course of the 16-week intervention period to writing instruction. In both the treatment and comparison classrooms, students were taught using a targeted writing curriculum that included explicit instruction in writing strategies.

In the case of the treatment classrooms, multiple class periods were spent on one particular writing intervention. For example, the five lessons that comprise the first unit—STOP, AIMS, DARE—all centered around the processes of planning and composing a persuasive essay. Each day of instruction during the STOP, AIMS, DARE unit included a combination of activities and strategies geared towards brainstorming, idea generation, proper paragraph structure, transitions, conventions, and the actual composition of the final writing piece. In addition, all of these lessons used the same source materials and writing prompt. While the SRSD curriculum contained multiple lessons within each unit and multiple steps within each lesson, they were always focused on teaching to the same area of writing. The writing decisions and pacing of instruction in the SRSD classrooms was student directed, with teacher guidance and facilitation.

Alternately, the traditional writing curriculum utilized in the comparison classrooms, was characterized by a new writing intervention focused on a new writing skill in each class. For example, one day students would be asked to reflect on a previously written essay and

the following day asked to brainstorm ideas and create big ideas and thesis statements for a new topic. The next week, students were given structured practice on the complexity of sentences and how to improve fluency by transforming simple sentences into compound sentences. While these sentences were connected to historical content appropriate for the normal historical curriculum, they were not tied in any way to the topic of the essay prompt. Finally, during the third week of instruction, students practiced with transitions one day and the next day asked to outline and then write their essay. In the comparison classrooms, peer editing and teacher editing were common while self-reflection was not. The writing strategies used in the comparison classrooms could best be described as structured, repeated activities on stand-alone topics that were not connected to the eventual essay prompts. The writing decisions and pacing of instruction in the comparison classrooms was teacher directed, with little student input.

In terms of time spent implementing the writing curricula, the logs revealed that in both cases teachers dedicated more than half of their allotted instructional time to writing instruction. In the modified writing curriculum, each of the three units contained approximately five to seven lessons that were implemented 2-3 times per week. While, there were some days and weeks that were more geared towards writing, occupying 3-4 hours of instructional time, there were also weeks where writing was not as heavy a focus of instruction, resulting in only 1-2 hours of instructional time. On those days that teachers chose to focus on the modified writing curriculum with embedded self-regulation strategies, they usually dedicated the entire class period to this instruction.

Throughout the 16-week intervention period, teachers had between 48-64 class periods, or approximately 2400-3200 minutes, of instructional time available to them.

According to the teacher logs, the average amount of time spent implementing the modified writing curriculum was 1850 minutes, or 37 class periods, which translates to between 58-77% of instructional time. It is because of the rotating schedule used by this school that only a range of instructional minutes can be provided. The teacher logs for the comparison classrooms revealed that on average, teachers implemented the traditional writing curriculum without embedded self-regulation strategies 1-2 times per week, usually for one-half to the whole class period. According to the logs, the mean amount of time spent implementing the traditional writing curriculum without embedded self-regulation strategies was 32 class periods, equal to1600 minutes or 50-67% of the instructional time available throughout the 16-week intervention period. During the remaining instructional time, in both the treatment and comparison classrooms, students participated in the traditional social studies content driven curriculum.

The logs also provided insight as to how lessons progressed, including student achievements, challenges, and reactions. Treatment classroom teachers reported that during the first cycle of instruction for each of the three units, especially PLANS (goal setting), students struggled with the level of independence they were given. While the teachers provided explicit instruction and modeling for each step, students were then expected to pace themselves and use the teacher as a facilitator. The logs revealed that during this first cycle, students needed more time than had been initially expected and asked many more questions of the teacher when compared to the second and their cycle of instruction, when the students had prior experience with the units. Overall, even during the first cycle of instruction, the SCAN unit progressed a bit smoother in terms of the students' ability to self-monitor their work requiring less teacher interference and guidance. During the SCAN unit, students are

expected to review their work and check for clarity and fluency. This involves checking for whether the ideas make sense and are supported, and also looking for errors in the conventions of writing.

Comparison classroom teachers reported that students experienced a wide variety of reactions to the traditional writing curriculum. According to the teacher logs, some students were able to finish the lessons quickly and without problem while others struggled to finish. Teachers noted that some of the writing activities and lessons were longer than others and that those were the ones that more students tended to struggle with finishing. Log entries by the teachers indicated that the students did not seem to struggle with the difficulty level of these tasks but rather they seemed to become bored of the repeated, structured nature of the activities. Lastly, the teacher logs stated that the quality of what the students' completed was quite high suggesting that students were successful at learning the writing strategies that were presented to them.

Summary

The analyses in this chapter focused on the effects of self-regulation writing strategies and gender on writing self-efficacy and persuasive writing achievement for secondary students. These analyses were conducted using data gathered from a sample of grade 9 and grade 10 students (n = 160 for pretest and n = 154 for posttest). Two research questions guided the process.

Chapter four presented data related to the two research questions in this study. Research question one explored the effect of a modified writing instructional program that utilized embedded instruction in writing and self-regulation strategies on secondary-school students' persuasive writing achievement scores. Data for this question were analyzed using

a two-way ANOVA. Results indicated that the students' scores did not vary by the type of writing instructional program, modified or traditional. However, girls achieved higher scores than boys, regardless of the type of instructional program.

Research question two explored the relationship between writing self-efficacy and type of writing instruction, as well as the relationship between writing self-efficacy and gender. In comparing the mean scores and standard deviations of the three subscales of the SEWS between three research studies, it was noticed that the conventions subscale retained the highest mean scores, while the self-regulation subscale had the highest variability in scores. Correlations between the Ideation and Self-regulation subscale were revealed to be high while the other subscales remained moderately correlated to one another. Data for this question were analyzed using hierarchical multiple linear regression analyses for each of three constructs of writing self-efficacy: conventions, ideation, and self-regulation. Results indicated that students' ideation and self-regulation related to writing self-efficacy were not significantly explained by either type of instructional program or gender. However, gender was found to be a significant predictor of students' writing self-efficacy with respect to conventions.

Additional analyses were conducted on the teacher logs that detailed the writing strategies that were implemented in each class, the amount of time spent on the respective curriculum in each group, and student reactions to the lessons. Chapter four presented these results and findings as explained by the context of this particular research study. The significance and implications of these findings will be discussed more thoroughly in chapter five. The following chapter will also further discuss the proposed future research

opportunities that have emerged regarding writing instruction, as well as the limitations of this study.

CHAPTER FIVE: SUMMARY AND CONCLUSIONS

Chapter five provides a discussion of the findings of the study as related to the literature and a comprehensive summary of the research. The chapter also presents conclusions and a discussion that extends the previous four chapters of this research study.

This chapter is composed of six sections. The Summary of the Study provides an overview of the research that was conducted. The Findings section describes the data collection procedures and quantitative methods of analyses of the two research questions that guided this study. This section also provides a review of the results from these statistical analyses. The Comparison and Contrast of Findings section relates the findings of the research study to the constructs discussed in the review of literature in chapter two. The Implications section suggests recommendations for writing instruction that can be followed as a result of this study, and the Future Research section proposes future research topics that expand upon the results of this study. Finally, the Limitations section describes threats to internal and external validity that may have impacted the results of this research, as well as steps taken by the researcher to address each limitation.

Summary of the Study

The purpose of the research was to determine whether or not the implementation of a writing intervention program (Self-Regulated Strategy Development, SRSD) focused on teaching self-regulation strategies would impact students' persuasive writing achievement scores and self-efficacy for writing. Two writing curricula were implemented in a total of 13 social studies classes at the ninth and tenth grade levels. The goal of the treatment curriculum was to provide students with strategies to break down the task of persuasive writing and examine specific aspects of the writing process as they learned self-regulation

strategies that both supported and engaged them with the writing process. The comparison classes were taught using a traditional, writing approach.

Research Questions and Hypotheses

By using a systematic approach, this study addressed the following questions:

1. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students who participate in a Writing Instructional Program that follows a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) and those who participate in a Writing Instructional Program that follows a traditional process approach without embedded strategy instruction in writing and self-regulation (comparison)?
    a. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) students who participate in a Writing Instructional Program that follows a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) and those who participate in a Writing Instructional Program that follows a traditional process approach without embedded strategy instruction in writing and self-regulation (comparison)?
    b. Is there a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students?
    c. Is there a significant interaction between Writing Instructional Program and Gender?

2. To what extent and in what manner do Gender and Writing Instructional Program explain the variation in students' *posttest* Writing Self-efficacy (Conventions, Ideation, Self-regulation) above and beyond *pretest* Writing Self-efficacy (Conventions, Ideation, Self-regulation) scores?

The researcher tested the following quantitative non-directional hypotheses for research questions one and two:

1. There will be a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students who participate in a Writing Instructional Program that follows a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) and those who participate in a Writing Instructional Program that follows a traditional process approach without embedded strategy instruction in writing and self-regulation (comparison).
2. Gender and Type of Writing Program will significantly explain the variation in students' posttest Writing Self-efficacy, above and beyond pretest Writing Self-efficacy.

Procedures

The researcher utilized a quasi-experimental research design to address the two research questions. Quantitative data were collected from two sources: (a) the Persuasive Essay Rubric and (b) the Self-Efficacy for Writing Scale (SEWS). Descriptive data about participants were collected from the Researcher-developed Student and Teacher Demographic Surveys, and information regarding the implementation of curricula was collected from the Teacher Writing Curriculum Implementation Logs.

The student participants in this research project represented a sample of convenience (n = 182) drawn from a population of ninth and tenth grade level two students (n = 275). Five social studies teachers at the ninth and tenth grade levels participated in the study. All participants attended the same suburban high school. The teacher participants' classes were randomly assigned to one of the two writing curricula, a modified process approach with embedded strategy instruction in writing and self-regulation (treatment) or a traditional process approach without embedded strategy instruction in writing and self-regulation (comparison).

For the first research question, the effect of the independent variables, Writing Instructional Program and Gender, was examined with respect to the dependent variable, Persuasive Writing Achievement. Pretest scores were first analyzed to determine where there were initial differences between the group means. Because significant differences on pretest scores existed between the two genders (girls scored higher than boys), posttest data for research question one were analyzed using a two-way ANCOVA; pretest scores were the covariate.

For the second research question, the extent and manner in which Gender and Writing Instructional Program predicted Writing Self-efficacy was examined. Data were analyzed to determine which variables predicted self-efficacy for writing. Data for each of the three SEWS subscales (Conventions, Ideation, Self-regulation) were analyzed using a series of hierarchical multiple linear regression procedures to determine if either Gender or Writing Instructional Program were predictors for any of the three SEWS subscale scores.

Findings

This section presents the results from the data analyses procedures that were performed and explained in Chapter Four for each of the two research questions.

Research question one. An analysis of covariance (ANCOVA) was conducted to examine the non-directional hypothesis that there will be a significant difference in Persuasive Writing Achievement between secondary school (grades 9 and 10) male and female students who participate in a Writing Instructional Program with embedded self-regulation strategies (treatment) and those who participate in a traditional Writing Instructional Program without embedded self-regulation strategies (comparison). All data were cleaned and assumptions were checked.

There was a significant main effect for the independent variable Gender. The gender main effect indicated that girls (n = 85, M = 27.78, SD = 4.06), regardless of type of writing instruction, scored significantly higher (p = .024, η^2 = .035, small) than boys (n = 75, M = 26.28, SD = 3.67) on Persuasive Writing Achievement. There was no significant effect for Writing Instructional Program and no significant interaction between Writing Instructional Program and Gender. The non-directional hypothesis for this research question was therefore not supported by the findings.

Research question two. The researcher conducted a series of three hierarchical multiple linear regressions to test the non-directional hypothesis that the predictor variables of Gender and Type of Writing Program would significantly explain the variation or lack of variation in the three criterion variables, students' posttest Writing Self-efficacy, after accounting for pretest Writing Self-efficacy scores. Writing Self-efficacy was measured using the individual subscale scores (Conventions, Ideation, Writing Self-Regulation). For

each procedure, data were analyzed using a hierarchical regression, which allowed the researcher to determine the order in which the predictor variables were entered into the regression model. For all three regression analyses, the researcher first entered Writing Self-efficacy pretest mean scores (Conventions, Ideation, and Self-regulation) as the first block of predictor variables and Writing Instructional Program and Gender as the second block of predictor variables. Three separate regression analyses were run this way with Writing Self-efficacy posttest scores (Conventions, Ideation, or Self-regulation) serving as the criterion variable.

Results demonstrated that for each of the three SEWS subscales, the first model containing the predictor variable of Writing Self-efficacy pretest mean scores (Conventions, Ideation, Writing Self-Regulation) significantly predicted posttest scores, $p < .001$. Adding Gender and Writing Instructional Program as predictors did not significantly improve the model's predictive nature for the two SEWS subscales of Ideation and Self-regulation, but it did significantly improve the model for Conventions. For this subscale, follow-up analyses revealed that Gender was the significant predictor ($p = .003$) in this model. This finding further indicated that girls had a significantly higher belief in their own abilities in terms of the conventions of writing than did boys. These findings only partially support the non-directional hypothesis for this research question since only Gender had significant results for one of the SEWS subscales.

Comparison and Contrast of Findings Related to the Literature Review

The review of the literature presented in chapter two supports the assertion that learning is an active process with the learner at the center of this process, engaged and subject to influence by environmental and behavioral factors (Bandura, 1977, 1986).

Instructional strategies are therefore valid tools to be implemented by teachers when attempting to improve student achievement. The research (Bandura, 1997; Pajares, 2002, 2008) supports this concept across all content areas, including the domain of writing.

Adding to this body of knowledge regarding environmental and behavioral influences on learning is the critical concept of self-efficacy. The literature supports the potential positive influence that self-efficacy beliefs can have on academic behavior (Bandura, 1986; Bruning et al., 2012; Schunk, 1989; Zimmerman, 2000b). In the subject of writing, research (De La Paz & Graham, 2002; Zimmerman, 2000a; Zimmerman & Martinez-Pons, 1990) suggests that successful writers use specific strategies to develop their writing processes and that these strategies are particularly beneficial when geared towards improving basic aspects of writing such as planning, organization, and revising (Flower & Hayes, 1981; Hayes & Flower, 1980).

Previous research (De La Paz, 1999, 2001; Graham, 2006; Harris et al., 2006; Kiuhara et al., 2012) on the Self-Regulated Strategy Development (SRSD) program and its successful efforts to help students improve their own writing has focused primarily on students with special needs and/or previously identified as struggling writers. A lack of research exists regarding the impact of SRSD instruction on the persuasive writing achievement and writing self-efficacy of high school students in regular education classrooms.

Research Question One

One aspect of this research study investigated whether or not a writing intervention program focused on self-regulation writing strategies (SRSD writing curriculum) would have a positive impact on students' persuasive writing achievement scores. Table 38 presents

prior research connected to this question, the findings of these previous studies, and whether or not and how the current research supports or does not support these previous findings.

Table 38

Comparison and Contrast of Findings – Research Question One

Research	Description of Previous Findings	Current Research
De La Paz, 2001 Graham, 2006 Harris et al., 2006 Kiuhara et al., 2012	Implementation of SRSD writing curriculum has generally improved the persuasive writing achievement of students	The current research did not support previous findings; although treatment participants scored higher than comparison participants, the difference was not statistically significant.
College Board, 2012 Pajares and Valiante, 1999, 2001 NCES, 2012 CSDE, 2012	Girls appear to be stronger writers than boys.	Current research supported previous findings: girls, regardless of writing curriculum, entered the writing program with higher skills and scored significantly higher in persuasive writing than boys after adjusting for initial differences.

Unlike prior research, (De La Paz, 1999, 2001, 2005; Graham, 2006; Harris et al., 2006; Kiuhara et al., 2012), findings from the current research study demonstrated no statistically significant difference between the scores of students taught using curriculum focused on self-regulated writing strategies and curriculum which was not. Much of the previous research (De La Paz, 1999, 2001, 2005; Graham, 2006; Harris et al., 2006) has shown that when SRSD writing instruction is taught in the elementary grades (K-5), younger students tend to score significantly better than their peers who are not exposed to self-regulation strategies in their writing instruction. Therefore, one possible explanation for the inconsistency between the findings of this study and the findings of prior studies is the age of student participants. It is possible that a self-regulation writing curricula is not as effective with high school students as it is with younger students; self-regulation strategies may be established at a younger age and may be less malleable in older students.

The findings of the current study support previous research (De La Paz, 1999, 2005; De La Paz & Graham, 2002; Harris & Graham, 1999) about the importance of writing instruction that focuses on teaching specific strategies, which was present in both of the writing programs in this study. Although the comparison and treatment curricula emphasized different strategies, both programs focused on improving persuasive writing. Previous research on writing instruction (De La Paz, 1999, 2005; De La Paz & Graham, 2002; Harris & Graham, 1999) suggests that students who are explicitly taught writing strategies, especially those for planning and composing, produce essays that are more persuasive and contain more arguments than the essays produced by students who are not taught these strategies (De La Paz, 2005). It is also important to note here that this SRSD writing instructional program was implemented in a social studies classroom, not in an English

classroom. In an English classroom, literacy is more of a traditional part of instruction due to the added opportunities to reinforce writing skills in a dedicated English class.

This consideration is further supported by the teacher logs submitted from the comparison and treatment teachers at the conclusion of the study. It may be seen in the teacher logs that both the treatment and comparison classroom teachers dedicated over 50% of instructional time over the course of the 16-week intervention period to writing instruction. Teacher logs also confirm that in the treatment classrooms, students spent approximately 1,850 minutes, or 58-77% of instructional time over 16 weeks on writing, while in the comparison classrooms students spent approximately 1,600 minutes, or 50-67%, of instructional time on writing. These findings from the current study, coupled with that of the prior research, suggest that students' persuasive writing achievement is likely to improve as a result of a targeted writing curricula taught over a substantial length of time that includes explicit strategies.

Another aim of this research study relative to research question one was to determine whether there was a significant difference in the persuasive writing achievement scores of male and female participants. In this study, the researcher found a statistically significant difference in the persuasive writing achievement mean scores between boys and girls, with girls scoring significantly higher than boys, a finding which is consistent with previous research (College Board, 2012; Pajares & Valiante, 1999, 2001) and test results (CSDE, 2012; NCES, 2012).

Further supporting the literature (College Board, 2012; Pajares & Valiante, 1999, 2001) and the results of standardized testing (NCES, 2012; CSDE, 2012), it is important to note that female participants in this study earned higher scores on the pretest than their male

peers and they retained the highest scores in Persuasive Writing Achievement throughout the study, regardless of the type of writing instructional program in which they were assigned. Both male and female students, regardless of program type, improved their mean total rubric scores throughout the course of the study. However, female students started the intervention period with higher pretest mean total rubric scores than their male counterparts and remained higher at the conclusion of the study. While both genders improved over the course of the intervention, as evidenced by posttest mean total rubric scores, female students improved overall more than male students. These results mirror trends in writing achievement related to gender that have been indicated by prior research and major national/international assessment studies (CSDE, 2012; College Board, 2012; NCES, 2012; Pajares & Valiante, 1999, 2001).

Key findings from previous research about the use of self-regulation strategies in the classroom are that: (a) girls tend to set goals and make plans for more frequently than boys; (b) girls keep records and self-monitor more frequently than do boys; and (c) girls structure their environment to their advantage more frequently than do boys (Zimmerman & Martinez-Pons, 1990). It is important to note that, although the type of writing curriculum and the specific strategies used in the treatment condition were the same in the current study as in previous research studies (De La Paz, 2001; Graham, 2006; Harris et al., 2006; Kiuhara et al., 2012), differences in the demographic make-up of the participants existed in the current research study. For example, in the current research study, female students made up a larger percentage (57.3%) of comparison group participants than did male students (42.7%). This fact is important to consider, given the preponderance of research (e.g., Pajares & Valiante, 1999, 2001) that suggests that female writers generally demonstrate higher levels of mastery

than male writers and that females have a natural tendency to use self-regulation strategies in academic settings (Zimmerman & Martinez-Pons, 1990). With a majority of girls in the comparison group, this could indicate that the comparison groups' participants were more likely to naturally rely on self-regulation strategies in their writing process even through their curriculum did not explicitly teach these as writing strategies.

Research Question Two

The self-efficacy construct measured in research question two is rooted in social cognitive theory (Bandura, 1977) and the belief that individuals play an active role in their own learning. Self-efficacy, a person's own beliefs about their capabilities to complete certain tasks, is the construct at the center of this question. In writing, self-efficacy has been widely researched; however, much of the research has focused on the writing self-efficacy issues faced by students with learning disabilities. Table 39 presents prior research connected to this question, the findings of these previous studies, and whether and how the current research supported these previous findings.

Table 39

Comparison and Contrast of Findings – Research Question Two

Research	Description of Previous Findings	Current Research
Bruning et al., 2012 Pajares et al., 2007	Three constructs of writing self-efficacy—conventions, ideation, self-regulation—appear to be correlated with each other. Four sources of self-efficacy—mastery experience, vicarious experience, social persuasions, physiological and emotional states—also appear to be correlated with overall writing self-efficacy.	The current research supported previous findings by confirming the interrelatedness in terms of significant correlations of these domains of writing self-efficacy.
Pajares and Valiante, 1999 Pajares et al., 2007	Girls report greater writing self-efficacy than boys.	The current research partially supported previous findings, because gender was a significant predictor for writing self-efficacy for the conventions subscale.

(continued)

Research	Description of Previous Findings	Current Research
Bandura, 1986 Bruning et al., 2012	Self-efficacy is a complex, domain-specific construct that can take years to develop, especially in academic domains such as writing.	The current research supported previous findings about the complex nature of self-efficacy.

Researchers (Bruning et al., 2012) have defined writing self-efficacy and also developed an instrument (Self-Efficacy for Writing Scale [SEWS]) to measure self-efficacy for writing. Bruning et al. (2012) suggested that three important constructs are embedded within writing self-efficacy: (a) writing conventions, (b) ideation, and (c) self-regulation. As expected, the results of research question two showed that the mean scores for all subscales of the SEWS (Conventions, Ideation, Self-regulation) were significantly correlated to each other ($p < .001$). Tables 26 and 27, presented in Chapter 4, further discuss the interrelatedness of these three subscales. This finding further supports the goodness of fit pertaining to the instrument development and subsequent internal consistency reliability of the SEWS (Bruning et al., 2012). Indicates….further look at notes from defense, etc…

Gender was a significant predictor of students' conventions posttest mean scores after accounting for pretest scores, a finding that was not replicated for ideation or self-regulation. This finding suggests that female students are likely to hold more positive views of their own abilities in the area of writing conventions than their male counterparts. According to researchers Graham (2006), Zimmerman (2000a), and Zimmerman and Martinez-Pons (1990), individuals' experiences with writing conventions develop through the editing and

revision stages of the writing process; students who use self-regulation strategies during these processes may have an advantage that translates into achievement—achievement eventually translates into increased self-efficacy. Girls tend to display more self-regulation behaviors (Zimmerman & Martinez-Pons, 1990) and may therefore have a natural advantage in this area.

It is also critical to keep in mind that self-efficacy is a complex, domain-specific construct, that can take years to develop (Bandura, 1986), especially in academic domains such as writing. As noted by Bruning et al. (2012) writing is also a skill that develops over a long period of time, "…writing development advances slowly. Writing requires coordination and integration of numerous subskills, and the typically slow course of writing development reflects writers' need to proceduralize knowledge…" (p. 3). It is therefore not surprising that writing self-efficacy is developed over years of schooling. Student participants in this research study experienced a 16-week intervention period that is likely not ample time to fully and completely measure any long-term, significant changes in writing self-efficacy. Bandura (1986) and Bruning et al. (2012) have argued that positive writing self-efficacy beliefs are formed as the compilation of successful and unsuccessful writing experiences that eventually scaffold individuals to an increasing level of mastery. It is logical to conclude that this level of self-efficacy can only occur after ample time to have these experiences and develop this level of mastery.

Implications for Educators

The current research offers educators a number of implications for practice. This study explored the implementation of writing curricula, modeled after the Self-Regulated Strategy Development (Harris & Graham, 1996) that followed a modified process approach

with embedded strategy instruction in writing and self-regulation to develop secondary students' persuasive writing skills. Findings demonstrated no significant differences between group scores with regard to type of writing curriculum that was implemented. However, the current study found that girls demonstrated higher persuasive writing achievement than boys, regardless of the type of writing curriculum that was used. Lastly, this study revealed that gender was a significant factor in the prediction of posttest scores for the Conventions domain of writing self-efficacy. Major findings and implications for educators are found in Table 40, and will be discussed below.

Table 40

Major Findings and Implications for Educators

Finding	Implications for Educators
Research Question 1: Female participants scored significantly higher in persuasive writing achievement than their male counterparts.	1. School personnel need to examine more closely what continues to make girls score higher on persuasive writing tasks than boys. It is imperative that school personnel, including administrators and teachers, provide extra time and attention to boys during writing instruction.
Research Question 2: Gender was a significant factor in the prediction of scores for one domain of writing self-efficacy, conventions.	2. School administrators and curriculum coordinators should utilize curriculum that explicitly teaches strategies aimed at improving writing conventions, such as the critical editing and revision stages of the writing process to all students, especially boys.

Supporting previous research (Pajares & Valiante, 1999, 2001), the current study found that female participants scored significantly better in persuasive writing achievement than their male counterparts. It is in the best interest of all students for school personnel to examine more closely what continues to make girls score higher on persuasive writing tasks than boys. It is imperative that school personnel, including administrators and teachers, provide extra time and attention to boys during writing instruction. Educators need to ensure that all students receive explicit instruction in writing strategies, especially those for planning and composing (De La Paz, 2005). The focus of writing instruction may be on self-regulation strategies, as is the case with the SRSD curricula, or on any type of writing instructional program that targets specific writing strategies.

Teachers, administrators, and curriculum coordinators need to take into consideration what research has indicated regarding the writing process when making instructional decisions for all students, but especially for boys. Previous research (De La Paz & Graham, 2002; Flower & Hayes, 1981; Hayes & Flower, 1980; Zimmerman, 2000a; Zimmerman & Martinez-Pons, 1990) suggests that explicitly teaching strategies such as planning and prewriting as part of the writing process can be beneficial in improving writing. According to seminal researchers Hayes and Flower (1980), three major components of skillful writing are: planning, transferring planning to writing, and reviewing text. It is during the first of these processes, planning, that the importance of organization becomes evident (Hayes & Flower, 1980). These researchers stated "…the sub-process of organizing takes on the job of helping the writer make meaning, that is, give a meaningful structure to his or her ideas…At another level the process of organizing also attends to more strictly textual decisions about the presentation and ordering of the text" (Flower & Hayes, 1981, p. 372).

In the current study, students in both the treatment and the comparison groups were explicitly taught these strategies as indicated by the teacher implementation logs. A number of the strategies taught in the comparison curriculum focused on improving sentence and paragraph structure (as detailed in chapter three), and participants in the comparison group likely benefitted additionally from these strategies. The importance of these processes to overall writing achievement may be one factor that contributed to the finding from the current research that although treatment participants scored higher than comparison participants, the difference was not statistically significant. It is imperative that school personnel reinforce the notion that writing is a process and that the developers of writing curricula carefully consider how planning and prewriting are taught, reinforced, and assessed in the classroom.

The three dimensions of writing self-efficacy are unique domains that need to be considered as separate entities when being incorporated into writing instruction. As evidenced by the correlations between the subscales (Table 28), Ideation and Self-regulation are highly correlated to each other indicating that they share similar characteristics. Perhaps it is because both are abstract concepts that are not easily understood by secondary students, in particular in the context of understanding how they perceive their own abilities to demonstrate the behaviors related to these dimensions within the domain of writing. Teachers and administrators need to work together to explore how these abstract concepts are taught to students.

School personnel must collaborate to create and implement an effective writing curriculum that considers these constructs in its design. The domain of ideation involves not only coming up with ideas but also weighing the good and bad ideas to evaluate the quality

of ideas before deciding to include them in finished writing products. Perhaps a writing program that provides students with scaffolding to help make these ideas more concrete and easier to understand in the context of their writing might provide this type of effectiveness.

Self-regulation takes a longer time to develop in students (Zimmerman, 2000a, 2002) so we need to find ways to embed self-regulation writing strategies into normal writing instruction not as a separate entity. According to teacher reports in the implementation logs, students struggled with the goal-setting strategy of PLANS, which is closely connected to self-regulation. School personnel, in particular teachers and support staff, should make it common practice to speak with students about the nature of self-regulation.

In the case of writing conventions, students are expected to pay particular attention to this domain of writing from an early age. Conventions of writing such as punctuation, grammar, and sentence structure are taught in the elementary grades and reinforced at each grade level. Unlike the two domains of ideation and self-regulation, conventions is a concrete construct that is much easier for students to identify and understand. The teacher logs revealed that students had the easiest time during the revision unit of SCAN. A serious implication for classroom teachers is to understand how to most effectively teach and reinforce writing conventions, especially to boys.

The domain of writing conventions is a critical component of writing that skilled writers tend to be more knowledgeable about than developing writers (De La Paz & Graham, 2002). According to researchers Scardamalia and Bereiter (1986), one of the key differences between skilled writers and developing writers is that expert writers understand editing and revising strategies and utilize these strategies to help them improve their own writing. One important implication for school personnel, including school administrators and curriculum

coordinators would be to utilize instructional strategies that are most effective for teaching these common foundational writing conventions skills to students, especially boys.

The results of this study further suggest that female students are likely to hold more positive views of their own abilities in the area of writing conventions than their male counterparts. Given the findings from the current research study and from previous research (Graham, 2006; Zimmerman, 2000a; Zimmerman and Martinez-Pons, 1990) indicating that the connection between the development of students' writing self-efficacy in the domain of conventions and the editing and revision stages of the writing process is a strong one; educators should provide ample opportunities for students (both males and females) to participate in these critical stages of the writing process and to provide appropriate and consistent feedback to students about their writing. School administrators and curriculum coordinators should utilize curricula that explicitly teaches strategies aimed at improving writing conventions, such as the critical editing and revision stages of the writing process, to all students, especially boys.

Of the four sources of self-efficacy first postulated by Bandura (1997), mastery experience, is the one that has the highest predictive value of students' academic self-efficacy (Pajares et al., 2007). In prior research, Pajares and Valiante (1999) found that "Academic self-beliefs are created and developed as a result of mastery experiences with previous academic work…" (p. 396). This prior research and the results of the current study suggest that decisions should be made at the building and district level to re-examine how to structure academic tasks and situations so that students are provided with a myriad of opportunities to practice writing. One way that this may be achieved is through the work of administrators and curriculum developers to ensure that there are more opportunities for students of both

genders, especially boys, to improve the editing and revision processes across the curriculum and to ensure that formative feedback be provided to students. It is through this practice that individuals may develop the high level of mastery that is connected with writing self-efficacy.

Suggestions for Future Research

Suggestions for future research are presented in Table 41 and are discussed below.

Table 41

Suggestions for Future Research

Finding	Suggestions for Future Research
Research Question 1: Treatment participants scored higher in persuasive writing achievement than comparison participants, but the difference was not statistically significant.	Would a longitudinal study or a broader implementation using the modified writing program across the curriculum have a greater impact on persuasive writing achievement? Does the age of student participants affect persuasive writing achievement? What type of writing curriculum will be most effective in helping students develop their argumentative writing skills? Would a writing curriculum that follows a modified process approach with embedded strategy instruction in writing and self-regulation modeled after the SRSD curriculum be effective with argumentative writing that is emphasized by the Common Core Standards?
Research Question 1: Female participants scored significantly higher in persuasive writing achievement than males.	What specific steps can be built into writing instruction that will target boys and specifically work to improve the persuasive writing achievement of boys?

(continued)

Table 39

Suggestions for Future Research

Finding	Suggestions for Future Research
Research Question 2: Gender was a significant predictor of writing self-efficacy in the domain of conventions. Female students reported higher self-efficacy for writing conventions than males.	What are male and female high-school students' perceptions regarding writing conventions and their abilities to apply these conventions? What specific steps can be built into writing instruction that will target boys and specifically work to improve the writing self-efficacy of boys?

Although treatment participants in the current research study did score higher in persuasive writing achievement overall, the difference was not statistically significant. In the future, researchers may wish to investigate whether or not a broader implementation of the modified writing curriculum emphasizing strategy instruction in writing and self-regulation modeled after the SRSD curriculum could be successful in improving secondary students' persuasive writing achievement. There needs to be a qualitative study of what is happening at the secondary level with regards to writing across the curriculum. A better understanding of the experiences of all secondary teachers with regards to literacy instruction would help to better inform decisions about effective writing instruction. Perhaps if the current research had implemented the SRSD curriculum in English classrooms, the results would have been different due to the background of the English teachers about writing instruction.

In the future, researchers may wish to conduct a longitudinal study utilizing a modified writing curriculum with embedded strategy instruction in writing and self-regulation modeled after the SRSD curriculum to determine the impact such a writing curriculum might have on the persuasive writing achievement of the same group of participants over a longer period of time. By conducting a longitudinal study, and "…collecting data at different points in time in order to study changes or continuity in the sample's characteristics" (Gall et al., 2003, p. 292), researchers would be better equipped to study the change in writing self-efficacy over the course of multiple months or years. Teacher participants indicated in the teacher logs that students grew more comfortable, confident, and capable with the SRSD curriculum during the second and third cycles of instruction which also supports this suggestion for a longitudinal study.

Based on prior research (De La Paz, 1999, 2001, 2005; Graham, 2006; Harris et al., 2006) younger students tend to experience significant improvements in their persuasive writing achievement abilities when taught using the SRSD curriculum. Further research is warranted as to the nature of self-regulation strategies and how they interact with the age of student participants. In terms of SRSD instruction with high school students, a lack of research exists with high-school students, and so this additional research may prepare educators to deliver high-quality instructional practices in writing to this age group.

It may also be beneficial to understand how effective this type of writing instructional program would be in preparing students to meet the more rigorous writing demands of the CCSS. An avenue of future research could focus on argumentative writing and what changes need to be made to SRSD writing curricula in order to be applicable to this genre of writing. Based on previous research (CSDE, 2006; Hillocks, 2010) and the results of the current

study, educators and researchers can begin to identify some of the components of writing that are transferrable between the two genres. Further investigation is warranted into how to most effectively implement writing instructional programs modeled after the SRSD curriculum into an argumentative writing unit of instruction.

According to previous research (Nippold, Ward-Lonergan, & Fanning, 2005; Smee, 2009; Toulmin, 1958), persuasive writing is a complex process that involves taking a position and being able to communicate that position clearly in a well-supported, well-composed essay. Organization is one of the five dimensions of persuasive writing that make up the definition and assessment tool for persuasive writing achievement that was used in the current research study (CSDE, 2006). In addition, two of the key areas of overlap between persuasive writing and argumentative writing are cohesive organization and the use of transitions. It is therefore logical to conclude that, because organization is repeated in each of these definitions of persuasive and argumentative writing, it is an important contributing factor to successful writing. Future researchers may determine which specific strategies are successful at teaching students to successfully organize their writing, and how these strategies translate into improved overall persuasive writing achievement for students.

The findings of the current research also indicated that female participants scored significantly higher in persuasive writing achievement than their male counterparts. However, in the current study, female students made up a larger percentage (57.3%) of the comparison group participants than male students (42.7%). This is an important demographic variable given the previously cited research and test data (College Board, 2012; CSDE, 2012; NCES, 2012; Pajares & Valiante, 1999, 2001), demonstrating the stronger writing ability of female students and the likeliness of girls to display self-regulation

behaviors and strategies. Consequently, researchers may wish to repeat this study with equal numbers of male and female participants in each of the groups, treatment and comparison, so as to remove any possible effect the higher number of female students in the comparison group may have had on the overall results of the study. In addition, more studies are required to identify what specific strategies might be most successful in improving the persuasive writing achievement of male students.

Findings from the current study indicated that female participants in this study possessed greater self-efficacy for writing conventions than their male counterparts (Table 24). The strictly quantitative nature of this study suggests a need for additional qualitative research designed to understand secondary students' beliefs about writing conventions and their own abilities to develop these conventions. Given the complexities of writing and self-efficacy, a series of open-ended, qualitative questions would allow researchers to more fully understand the nature of the quantitative results regarding self-efficacy in terms of conventions. Future research is warranted into understanding more about these topics so that practitioners can make informed curricular decisions that will benefit students.

Furthermore, the results of this research support previous findings (Graham, 2006; Zimmerman, 2000a; Zimmerman & Martinez-Pons, 1990) which indicated that the most successful writers rely on self-regulation strategies to guide them through these processes and that girls tend to display more self-regulation strategies and behaviors than boys. Female students in the current study were more likely to hold positive views of their own abilities in the area of writing conventions than their male counterparts, and they scored significantly higher on persuasive writing. It is important for educational researchers and practitioners to better understand how writing instruction impacts the domains of writing self-efficacy in

students, and vice-versa. Similarly, researchers may wish to examine the effectiveness of specific writing programs that provide opportunities for students (both males and females) to participate in the critical editing and revision stages of the writing process. Continuing research into these areas could prove beneficial for all students, especially boys.

In hindsight, several modifications would be recommended to future researchers who are considering replication of the current research study. First, it is recommended that any future study include the use of a true control group that did not involve a formal writing curriculum, but rather only focused on traditional social studies instruction. This would allow for a more accurate understanding of the effectiveness of the SRSD curriculum with high school students. In order to further control for differences among the student participants, it is recommended that some type of covariate related to students' language arts achievement be included, such as reading level, type of English class, or grade in English class.

Given the prominence of gender as a variable in this study, future researchers should ensure that there are equal numbers of males and females in the treatment and comparison groups. This could be achieved by randomly excluding participants through a process such as a stratified random sample that would take into account students' gender before assigning to an instructional group. Lastly, in regards to the teacher participants, future researchers might want to examine the experience and background of the teachers more closely. Specifically, researchers might take into consideration whether secondary school content area educators, such as social studies teachers, have adequate preparation and experience teaching writing.

Limitations of the Study

Internal and external limitations may impact the results of any research. Several internal and external threats to the validity of the research were recognized and addressed in an attempt to lessen their impact upon the study. Every effort was made to control elements of the research study from the onset whenever possible.

Internal Validity

According to Gall et al. (2003), internal validity is, "the extent to which variables other than the treatment variable provide plausible explanations of the experimental results" (p. 367). In the current research study, a number of threats to internal validity existed due to the quasi-experimental research design. The following threats related to the internal validity of this research were identified during the course of the research study and are discussed in this section: subject selection, history, maturation, testing, instrumentation, compensatory rivalry by the control group, resentful demoralization by the control group, treatment interference effect, and experimental treatment diffusion.

Subject selection. Pre-existing differences between the participants in a study is a concern that must be taken into account when designing a research study. In order to be able to analyze the findings and determine reasons for the results, a researcher needs to consider if participants differ in unintended ways (Gall et al., 2003). In this study, students were from the same school with similar demographics across grade levels. For this research study, random assignment of intact classrooms controlled for this as much as can be expected in a quasi-experimental study. Therefore, subject selection was deemed a moderate threat.

History. One threat to the internal validity that is inevitable when a study takes place over a period of time is the threat of history. This refers to the possibility that some other

events or conditions, other than the treatment, might impact the outcome of the experiment (Gall et al., 2003). For this research study, participants were selected from a sample of convenience at one high school, using classes within the schools' ninth and tenth grades. Because the study was limited to just one school, this threat is higher than if two schools had been involved, because different events take place at different schools. However, vigilant communication with the teachers who were participating in the study ensured that the researcher was knowledgeable about unanticipated events that might have impacted the students, of which there were none of importance. History was deemed a small threat.

Maturation. The maturation threat is defined as "physical or psychological changes in the research participants" (Gall et al., 2003, p. 370). The participants in this study were ninth and tenth grade students who experienced normal growth and development typical for their age range, including all those changes associated with puberty. The researcher addressed this threat by having a comparison group composed of same age and ability peers being taught the same ancient world history curriculum for grade 9 and modern world history curriculum for grade 10. Therefore, maturation was deemed a small threat.

Testing. When a quasi-experimental design is used, such as in this research study, a pretest and posttest are administered to participants. According to Gall et al. (2003), "If the two tests are similar, students might show an improvement simply as an effect of their experience with the pretest" (p. 370). In this case, it was unlikely that exposure to the pretest influenced students' performance on the posttest for two reasons. First, the writing achievement that was being assessed was a valid test of persuasive writing achievement and therefore involved different writing prompts and scenarios during each testing period. In addition, since these students were adolescents, the time period between administrations (16

weeks) should have been long enough to ensure that subjects did not recall details of the initial testing. This threat was unavoidable because of the quasi-experimental nature of the research study and the necessity of administering a pretest. Testing was therefore deemed a moderate threat.

Instrumentation. The rubric that was used to assess persuasive writing achievement in this study was a rubric adapted from a valid and reliable assessment tool but did not have its own measures of validity and reliability in its adapted state. To protect against this threat the researcher conducted a pilot study, using the Guilford (1946) standards for test evaluation to establish validity and reliability on the adapted rubric prior to the start of the research study. Given the acceptable validity and reliability results yielded by this procedure, instrumentation was deemed a small threat.

Compensatory rivalry by the comparison group. Prior experience with this age group leads one to believe that the reaction by students when placed in a situation where they feel they may not be treated fairly is that they will put forth extra effort to overcompensate for the different instructional practices. The natural competitive nature of high school students is a powerful motivator. All teachers were encouraged to incorporate the writing intervention treatment in all classes at the conclusion of the study. Compensatory rivalry by the comparison group was considered a moderate threat.

Resentful demoralization by the comparison group. Gall et al. (2003), described this threat, "A control group can become discouraged if it perceives that the experimental group is receiving a desirable treatment that is being withheld from it" (p. 373). This threat was one of the most serious considerations for this research project due to the close proximity of the comparison and treatment groups. The professional development and

instruction provided prior to the beginning of the study was the best way to guard against this threat. Resentful demoralization by the comparison group was a moderate threat.

Treatment diffusion. The exposure that all teachers had to the writing strategies that were part of the treatment writing curriculum, featuring a modified process approach with embedded strategy instruction in writing and self-regulation, had the potential to make this a large threat. Since all but one of the teachers had both treatment and comparison classes in their daily schedule, the researcher conducted an intensive training about the two writing curricula for the teachers. All participating teachers were instructed about the importance of maintaining separate notes and materials for both the treatment and comparison groups.

According to Gall et al. (2003), experimental treatment diffusion is only a concern "…if the treatment condition is perceived as highly desirable relative to the control condition…" (p. 372). In the case of the school that participated in this research, there was already a strong emphasis on writing present in the social studies classes and curricula that were utilized during this study. Lastly, the researcher closely monitored implementation through weekly email correspondence with teachers, informal meetings, and the collection of Teacher Logs to protect against this threat. Experimental treatment diffusion was therefore deemed a moderate threat.

External Validity

External validity refers to, "the extent to which the experimental findings can be generalized to other settings" (Gall et al., 2003, p. 367). The researcher has identified two of the original twelve factors first discussed by Bracht and Glass (1968) that could have affected the external validity of this particular research study, one related to population validity and

one related to ecological validity. These threats are important to control for when considering repeating this study with different participants and settings.

Population validity. As detailed in chapter three, the research participants were a representative sample of the larger suburban, middle class, Caucasian student body of the participating high school. These student participants, deemed the experimentally accessible population (Bracht & Glass, 1968), only included ninth and tenth grade students from this suburban district. Therefore, the target population of this study was suburban high schools in the United States with similar demographics to the subject school. The inclusion of just this one district in the study makes it more difficult to increase the generalizablity of these findings to the larger population than if multiple districts had been used. To help combat this threat, heterogeneously grouped classes with mixed abilities were used to more closely replicate the larger population. Population validity was therefore deemed a small threat.

Ecological validity. The extent to which an experiment's results can be applied to other environmental settings and conditions refers to the experiment's ecological validity (Gall et al., 2003). There are multiple factors, including multiple-treatment interference, experimenter effect, and pretest sensitization, that can affect the ecological validity of an experiment (Bracht & Glass, 1968).

Pretest sensitization. In research conducted by Bracht and Glass (1968), researchers found that this threat is most common when the measure is self-reported and involves a personality or attitude instrument. Since this study included the use of both a writing self-efficacy pretest and a persuasive writing baseline assessment, there was a threat of students being more reactive or respondent to the assessments than would normally occur. For this reason, pretest sensitization was therefore deemed a moderate threat.

Summary

Chapter five of this dissertation provided a summary of the present study, including a discussion of the findings of the study as related to the literature, and a comprehensive summary of the research. The chapter also presented conclusions and a discussion that extended the previous chapters of this study. The aims of the current research were to determine: (a) whether and how self-regulated instructional strategies may help students to become more successful persuasive writers; and (b) what role gender and type of writing program may play in students' writing self-efficacy.

This study was designed to investigate the impact of two different writing curricula on ninth and tenth grade students. The two writing curricula were implemented in social studies classes at the ninth and tenth grade level over the course of a 16-week intervention period. Students in the comparison classrooms were taught using a traditional approach writing curriculum while treatment classrooms followed a writing curriculum that provided students with strategies to break down the task of persuasive writing and examine specific aspects of the writing process as they learned self-regulation strategies that both supported and engaged them with the writing process (SRSD curriculum). In addition, there is a connection to the theoretical constructs of constructivism and the social cognitive theory because the writing instructional strategies utilized in the intervention are supported by research. The overall goal of this study was to gain a deeper understanding of how self-regulation writing strategies might improve secondary students' persuasive writing achievement and their self-efficacy for writing.

Research and testing results have for many years confirmed that there is a need for writing reform in the United States and that there is a marked gender achievement gap in

writing. One instructional strategy that has been developed to help students improve their own writing is called Self-Regulated Strategy Development (SRSD). Prior to this study, most SRSD research focused primarily on students with special needs and/or previously identified as struggling writers. Limited empirical research related to the effectiveness of SRSD instruction for high school students in regular education classrooms existed. Additionally, no empirical studies examined the role of gender and self-efficacy in the context of different types of writing instruction (SRSD writing instruction or traditional writing instruction). It is this gap that the current research sought to fill.

For research question one, a quantitative data analysis of pre and posttest persuasive writing scores found no significant difference between the treatment and comparison groups. Further research is needed in terms of how to best teach students to be effective writers and to regulate their own writing processes. Writing instruction focused on writing as a process rather than a series of isolated, stand-alone practices may help to improve students' overall persuasive writing and help to make writing a lifelong skill that students can easily transfer to different situations and genres.

Significant findings in this study related to research question two suggest that when it comes to the conventions of writing, girls hold significantly higher self-efficacy beliefs. Future research can build on this body of knowledge to determine what strategies and instruction can be most successful in helping to raise writing self-efficacy for those male students who not only lag behind in persuasive writing achievement but also lack high self-efficacy for writing.

In secondary schools, writing instruction is shifting from persuasive writing tasks to more rigorous argument writing tasks. As students are challenged with this genre of writing,

their own beliefs about their ability to write successfully will be of critical importance. Students should be encouraged to be aware of their own self-efficacy beliefs for writing and how they might use self-regulation strategies to benefit their writing skills and become more proficient writers. It will be increasingly important that students possess the skills necessary to examine evidence, develop strong claims and counterclaims, and effectively communicate their position to others as they engage in the more complex and rigorous writing genre of argumentation.

Conclusion

Both persuasive writing and the related genre of argument writing call upon students to have the skills necessary to examine evidence, develop strong claims and counterclaims, and ultimately, communicate their position (Toulmin, 1958). These are life-long skills and students should be taught the process skills necessary for high achievement in writing. As a result, students will reap the educational benefits of developing 21st-century skills for future success as college and career-ready citizens. "We write differently—often digitally—and we write more than in the past. Technological advances, changing workplace demands, and cultural shifts make writing more important than ever, especially because the way we write often predicts academic and/or job success, creates opportunities for civic participation, maintains relationships, and enhances critical thinking" (National Council of Teachers of English, 2008, p. 1).

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Appendix A: Persuasive Essay Rubric

	6	5	4	3	2	1	Score
Thesis	Strong, thoughtful thesis established with 3 advanced supporting arguments.	Thesis and 3 strong supporting arguments stated; answers the question.	Addresses the question but has weak structure and focus; contains 3 arguments.	Poor focus; fails to answer the question adequately; may contain irrelevant arguments.	No thesis addressed; unfocused; no supporting arguments; misunderstands question.	No thesis or supporting arguments; no attempt to address the question.	
Use of Support/ Evidence	Position is richly supported; may contain multiple quotes per body paragraph.	Position is well supported with at least one quote per body paragraph.	Position is adequately supported with either quotes or paraphrases; simplistic analysis.	Response contains limited support; some only paraphrased or misunderstood.	Response contains superficial support; simply paraphrased or misunderstood.	Ignores or misuses the documents.	
Accuracy, Relevance, and Development of Ideas	The supporting ideas are very well developed; specific information from outside the documents is accurate, relevant.	The supporting ideas are generally well developed; information from outside the documents is accurate and relevant.	The supporting ideas are adequately but not thoroughly developed; information from outside the documents but may be inaccurate or irrelevant.	The supporting ideas are few or only somewhat developed; some information from outside the documents may be inaccurate irrelevant.	The supporting ideas may be poorly developed and/or may use limited information from source materials.	The support may be emotional, inaccurate, irrelevant, or show serious misconceptions.	
Organization of Response	The response is focused and contains 1 controlling idea; structures ideas in a cohesive, logical order. Follows 5-paragraph format.	The response is well organized and contains 1 controlling idea; digressions are rare; structures ideas logically. Follows 5-paragraph format.	The response is adequately organized with at least one controlling idea; may briefly go off topic; basic 5-paragraph structure is followed.	The response is somewhat organized, but there may be digressions that interfere with meaning; loose structure is followed.	The response may lack focus and a controlling idea; digressions may interfere with meaning; little identifiable structure.	The response lacks focus and a controlling idea; little or no organization present and frequent digressions interfere with meaning; unstructured.	

	6	5	4	3	2	1	Score
Fluency of Writing	The ideas are clearly and effectively developed; writing is fluent and polished with effective transitions.	Most ideas are clearly expressed; writing is generally fluent with some use of transitions.	Most ideas are clear and understandable, but fluency and transitions may be lacking.	Some ideas may not be clearly expressed; fluency and transitions may be lacking.	Some ideas may be difficult to understand; fluency and transitions are lacking.	Many ideas are difficult to understand; fluency and transitions are lacking.	
Conclusion	Restates advanced thesis; summarizes main arguments of essay thoroughly; concludes universal message.	Restates thesis; summarizes main arguments of essay; concludes universal message.	Restates thesis; briefly summarizes main arguments of essay.	Weak restatement of thesis; lacks complete summary of main arguments.	Does not restate thesis; confusing and unfocused summary.	No conclusion.	

Student Number: _____ Score: _____/36

Appendix B: Self-Efficacy for Writing Scale (SEWS)

Self-Efficacy for Writing Scale (SEWS)

In relation to writing, rate how confident you are that you can do each of the following by indicating a probability of success from 0 (no chance) to 100 (complete certainty). The scale below is for reference only; you may assign **any number** between 0 and 100.

0	10	20	30	40	50	60	70	80	90	100
No Chance	Very Little Chance		Little Chance		50/50 Chance		Good Chance		Very Good Chance	Complete Certainty

_____ I can spell my words correctly.

_____ I can write complete sentences.

_____ I can punctuate my sentences correctly.

_____ I can write grammatically correct sentences.

_____ I can begin my paragraphs in the right spots.

_____ I can think of many ideas for my writing.

_____ I can put my ideas into writing.

_____ I can think of many words to describe my ideas.

_____ I can think of a lot of original ideas.

_____ I know exactly where to place my ideas in my writing.

_____ I can focus on my writing for at least one hour.

_____ I can avoid distractions while I write.

_____ I can start writing assignments quickly.

_____ I can control my frustration when I write.

_____ I can think of my writing goals before I write.

_____ I can keep writing even when it's difficult.

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Appendix C: Institutional Review Board (IRB) Permission

Proposal # 1213.88

Human Subjects Research Review Form (HUM-1)
Western Connecticut State University Institutional Review Board

Principal Investigator(s): Jessica Galbraith

If the PI is a student, Faculty Supervisor: Dr. Nancy Heilbronner

Department Education and Educational Psychology

Project Title: The Effect of Self-Regulation Writing Strategies and Gender on Writing Self-Efficacy and Persuasive Writing Achievement for Secondary Students

Address: 9 Mountain Laurel Road, New Milford, CT 06776

E-mail: galbraith009@wcsu.connect.edu Phone number: 203-994-2853

Please check any of the following that apply to this proposal:

_____ A. Proposal is an undergraduate student research project developed as part of research methods course.

_____ B. Proposal is an undergraduate student independent study/thesis/honors/senior research project.

_____ C. Proposal is a graduate student research project developed as part of a research methods course.

__X__ D. Proposal is a graduate student research project developed for a Masters or Doctoral thesis.

_____ E. Proposal is WCSU faculty developed research.

_____ F. Proposal is externally developed faculty research. (make sure to include WCSU "sponsor" in application materials)

Is research funded or developed with an external grant? YES **NO**

If yes, name of Grant or funding agency: _____

Is this a new research project?

YES

If yes, are you applying for?

_____ Exempt Review

_____ Expedited Review

__X__ Full Review

NO

Protocol # of previously approved application _____

Are there any modifications to the previously approved research?

YES NO

1

Assurance of continued compliance with regulations regarding the use of human subjects.
I certify that the information provided in this application is accurate. If the procedures for obtaining consent of subjects change, or if the risk of physical, psychological, or social injury to the research subjects increases, or if there should arise unanticipated problems involving risk to subjects or others, I shall promptly report such changes to the WCSU IRB. I shall report promptly any unanticipated injury to or harm of a subject to my Department Chair and to the IRB.

Principal Investigator/s: Jessica Galbraith Jessica Galbraith 11-29-2012
(Printed name) (Signature & Date)

If PI is a student or external investigator,
Faculty Supervisor or WCSU Sponsor:
Dr. Nancy Heilbronner E&EPY Nancy P. Heilbronner 11-29-2012
(Printed name) (Department) (Signature & Date)

Committee Action

__ Approved through exempt review
X Approved by full committee review **IRB Chair's Approval** Jessi Colwell **Date** 12/20/18
__ Approved through expedited review
__ Not approved; clarification/modification required

Appendix D: Letter and Consent Form (Superintendent)

Consent to Participate in Doctoral Dissertation Research Study

Dear Dr. _____:

As you know, I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. I am seeking district permission to carry out my dissertation study, *The Effect of Self-Regulation Writing Strategies and Gender on Writing Self-Efficacy and Persuasive Writing Achievement for Secondary Students*, during the spring semester of 2013 (January – June) at [redacted] School. This study will examine the effect of self-regulation writing strategies and gender on writing self-efficacy and persuasive writing achievement.

Teachers will be randomly assigned to either a treatment or a comparison condition. Teachers assigned to the treatment condition will be asked to implement a researcher-designed curriculum that focuses on teaching students self-regulation strategies that they may use to improve their writing. Teachers assigned to the comparison condition will implement traditional classroom curriculum. Prior to the start of the study, I will train participating ninth and tenth grade social studies teachers who have been randomly assigned to the treatment group on the techniques and strategies of the modified writing curriculum. Teachers who have been randomly assigned to a comparison group will be offered training at the end of the study.

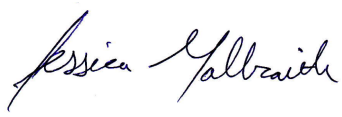
Before the writing curricula are implemented, I will need to collect demographic information about teachers and students by administering a brief (5-minute) survey. As with all data collected as part of this study, this information will be kept confidential. The Self-Efficacy for Writing Scale will also be administered to participating ninth and tenth grade social studies students twice (once in January and once in June) to measure students' level of writing self-efficacy and will take approximately 15-20 minutes each time to administer. I will be collecting previous persuasive writing samples from this academic school year on a small number of students for the purpose of validating an instrument. I will also be collecting CAPT parallel assessment scores for all participating students two times during the period of implementation. The first will be used as the pretest measure and the last will be used as the posttest assessment. During the period of the 16-week intervention, I will also ask teachers in both groups to complete a daily instructional log documenting their classroom activities.

Throughout the study, all teacher and student names will be coded and remain confidential. All participation in this study will be voluntary and will not have any effect on students' grades. Teachers and students have the right to withdraw from the study, and parents may remove their students from the study at any time. Data may be provided to you on request, in aggregate form only.

This research project has been reviewed and approved by Western Connecticut State University's Institutional Review Board**. If you have questions concerning the rights of the subjects involved in research studies please contact the WCSU Assurances Administrator at irb@wcsu.edu and mention Protocol Number** 1213-88. **This study is valid until December 12, 2014.**

If you agree to allow [redacted] School to participate in this study, please sign a copy of this form and return to me. If you have any questions, please feel free to contact me at galbraithj@[redacted].k12.ct.us

Sincerely,



Jessica Galbraith
EdD Candidate

Superintendent Signature _____ Date: _____

Superintendent Name _____

Appendix E: Letter and Consent Form (Principal)

Consent to Participate in Doctoral Dissertation Research Study

Dear Mr. _____:

As you know, I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. I am seeking district permission to carry out my dissertation study, *The Effect of Self-Regulation Writing Strategies and Gender on Writing Self-Efficacy and Persuasive Writing Achievement for Secondary Students*, during the spring semester of 2013 (January – June) at [redacted] School. This study will examine the effect of self-regulation writing strategies and gender on writing self-efficacy and persuasive writing achievement.

Teachers will be randomly assigned to either a treatment or a comparison condition. Teachers assigned to the treatment condition will be asked to implement a researcher-designed curriculum that focuses on teaching students self-regulation strategies that they may use to improve their writing. Teachers assigned to the comparison condition will implement traditional classroom curriculum. Prior to the start of the study, I will train participating ninth and tenth grade social studies teachers who have been randomly assigned to the treatment group on the techniques and strategies of the modified writing curriculum. Teachers who have been randomly assigned to a comparison group will be offered training at the end of the study.

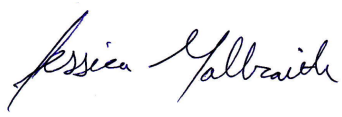
Before the writing curricula are implemented, I will need to collect demographic information about teachers and students by administering a brief (5-minute) survey. As with all data collected as part of this study, this information will be kept confidential. The Self-Efficacy for Writing Scale will also be administered to participating ninth and tenth grade social studies students twice (once in January and once in June) to measure students' level of writing self-efficacy and will take approximately 15-20 minutes each time to administer. I will be collecting previous persuasive writing samples from this academic school year on a small number of students for the purpose of validating an instrument. I will also be collecting CAPT parallel assessment scores for all participating students two times during the period of implementation. The first will be used as the pretest measure and the last will be used as the posttest assessment. During the period of the 16-week intervention, I will also ask teachers in both groups to complete a daily instructional log documenting their classroom activities.

Throughout the study, all teacher and student names will be coded and remain confidential. All participation in this study will be voluntary and will not have any effect on students' grades. Teachers and students have the right to withdraw from the study, and parents may remove their students from the study at any time. Data may be provided to you on request, in aggregate form only.

This research project has been reviewed and approved by Western Connecticut State University's Institutional Review Board**. If you have questions concerning the rights of the subjects involved in research studies please contact the WCSU Assurances Administrator at irb@wcsu.edu and mention Protocol Number** 1213-88. **This study is valid until December 12, 2014.**

If you agree to allow [redacted] School to participate in this study, please sign a copy of this form and return to me. If you have any questions, please feel free to contact me at galbraithj@[redacted].k12.ct.us

Sincerely,



Jessica Galbraith
EdD Candidate

Principal Signature _____ Date: _____

Principal Name _____

Appendix F: Letter and Consent Form (Teacher)

Consent to Participate in Doctoral Dissertation Research Study

Dear Teacher,

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. I am seeking district permission to carry out my dissertation study, *The Effect of Self-Regulation Writing Strategies and Gender on Writing Self-Efficacy and Persuasive Writing Achievement for Secondary Students*, during the spring semester of 2013 (January – June) in your classrooms. This study will examine the effect of self-regulation writing strategies and gender on writing self-efficacy and persuasive writing achievement.

If you decide to participate in the study, your classrooms will be randomly assigned to either a treatment or a comparison condition. If you are assigned to the treatment condition, you will be asked to implement a researcher-designed curriculum that focuses on teaching students self-regulation strategies that they may use to improve their writing. If you are assigned to the comparison condition, you will be asked to implement your traditional classroom curriculum. Prior to the start of the study, I will let you know which group you have been assigned to and train participating ninth and tenth grade social studies teachers who have been randomly assigned to the treatment group on the techniques and strategies of the modified writing curriculum. If you have been randomly assigned to a comparison group, you will be offered training at the end of the study.

Before the writing curricula are implemented, I will need to collect demographic information about you and your students by administering a brief (5-minute) survey. As with all data collected as part of this study, this information will be kept confidential. The Self-Efficacy for Writing Scale will also be administered to participating ninth and tenth grade social studies students twice (once in January and once in June) to measure students' level of writing self-efficacy. This scale will take approximately 15-20 minutes each time to administer. I will be collecting previous persuasive writing samples from this academic school year on a small number of students for the purpose of validating an instrument. I will also be collecting CAPT parallel assessment scores for all participating students two times during the period of implementation. The first will be used as the pretest measure and the last will be used as the posttest assessment. During the period of the intervention, I will also be asking you to complete a daily instructional log documenting classroom activities.

Throughout the study, all teacher and student names will be coded and remain confidential. All participation in this study will be voluntary and should not have any effect on students' grades. You or your students have the right to withdraw from the study, and parents or guardians may also remove their students from the study at any time.

This research project has been reviewed and approved by Western Connecticut State University's Institutional Review Board**. If you have questions concerning the rights of the subjects involved in research studies please contact the WCSU Assurances Administrator at irb@wcsu.edu and mention Protocol Number** 1213-88. **This study is valid until December 12, 2014.**

If you agree to participate in this study, please sign a copy of this form and return to me. If you have any questions, please feel free to contact me at galbraithj@[redacted].k12.ct.us

Sincerely,

Jessica Galbraith
EdD Candidate

Teacher Signature _____ Date: _____

Teacher Name _____

Appendix G: Letter and Consent Form (Parent)

Consent to Participate in Doctoral Dissertation Research Study

Dear Parent or Guardian,

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. This program requires that I design and implement a dissertation research study. My study, *The Effect of Self-Regulation Writing Strategies and Gender on Writing Self-Efficacy and Persuasive Writing Achievement for Secondary Students*, will help us understand the effect of certain self-regulation writing strategies and gender on students' writing scores and their feelings about their ability to write.

If you decide that your child may participate in the study, he or she will be given The Self-Efficacy for Writing Scale (SEWS) twice (once in January and once in June) to measure his or her feelings about the writing process. This 16-item survey will take approximately 15-20 minutes to complete. Students will also be asked to provide demographic information such as gender, ethnicity, and grade level. I will also be collecting CAPT parallel assessment scores for all participating students two times during the 16-week intervention period. These assessments will provide valuable information about your child's writing. Lastly, I will be collecting previous persuasive writing samples from this academic school year on a small number of students for the purpose of validating an instrument.

Participation in this study is completely voluntary. You have the right to withdraw your child from the study at any time. If you decide to allow your child to participate, results will not impact your child's grades. Student names will be coded and remain confidential.

This research project has been reviewed and approved by Western Connecticut State University's Institutional Review Board**. If you have questions concerning the rights of the subjects involved in research studies please contact the WCSU Assurances Administrator at irb@wcsu.edu and mention Protocol Number** 1213-88. **This study is valid until December 12, 2014.**

If you have any questions, please contact me at galbraithj@[redacted].k12.ct.us. If you agree to have your child participate in this study, please sign the attached statement and return it to your child's social studies teacher.

Sincerely,

Jessica Galbraith
EdD Candidate

I, _____, the parent/legal guardian (18 years of age or older) of the student minor below, acknowledge that the researcher has explained to me the purpose this research study, identified any risks involved, and offered to answer any questions I may have about the nature of my child's participation. I voluntarily consent to my child's participation. I understand all information gathered during this project will be confidential.

Student/Minors' Name:
_____

Signature of Parent or Guardian: _____ Date: _____

Name of Parent or Guardian: _____

Appendix H: Letter and Assent Form (Student)

Student Assent Form to Participate in a Research Study

Dear Student,

I am a student at Western Connecticut State University. I am doing an exciting research study during the spring semester of 2013, and I would like you to be a part of it. I will send a permission slip home for your parents to sign. But first, I want to give you some information about my study.

The study is on writing achievement and self-efficacy, or how you view yourself as a writer. If you decide to be in my study, you will need to take a survey called the Self-Efficacy for Writing Scale (SEWS). You will take the SEWS twice in order to measure your self-efficacy for writing. I will also be asking you to provide me with identification information such as your gender, grade level, and ethnicity. I will also be collecting data about your writing achievement from your teacher. These assessments will provide valuable information about writing and how we can help you to be the best writer possible. Lastly, I will be collecting previous persuasive writing samples from this academic school year on a small number of students for the purpose of validating an instrument.

I will not use your name in the study. I will use numbers instead of names. This study will not affect your classroom grades. All information will be kept private. Participation in this study is completely voluntary. You or your parents or guardians are free to withdraw you from the study at any time. If you have questions, please ask me.
If you would like to be in my study, please print and sign your name below:

Student Signature: _____ Date: _____

Student Name: _____

Thank you,

Jessica Galbraith

Mrs. Galbraith
EdD Candidate

Appendix I: Teacher Training Materials

Teacher Training Materials

Script:

Teacher Training Day 1 (January 29, 12:00 – 2:15, lunch provided)

Good afternoon! This semester will serve as the intervention period for my dissertation study. I want to sincerely thank all of you from the bottom of my heart for your cooperation in being a part of my study and working with me to help me achieve this huge professional and personal goal that I have set for myself! [Distribute small token – gift card]

As part of my study, all of our "academic" classrooms (grades 9 & 10) have been randomly assigned to be either "treatment classrooms" or "comparison classrooms" [refer to table]. The "treatment" classrooms will receive writing instruction with embedded self-regulation writing strategies and the "comparison" classrooms will receive traditional writing instruction without embedded self-regulation writing strategies. This means that you might be teaching some of your classes using these "new writing strategies" and other classes using your "traditional writing strategies".

The goal is to determine if embedding self-regulation writing strategies into the writing curriculum will improve students persuasive writing achievement and also their beliefs about their own writing abilities, as measured by the self-efficacy for writing scale.

All classrooms will continue to follow the world history curriculum and all students will complete the same writing assessments throughout the intervention period. The midterm essays will serve as our pretest assessment and the final exam essays will be our posttest assessment.

Distribute binders and step teachers through its contents.
For next week: teachers should complete an initial reading and annotation of the curriculum. Teachers can use the post it notes to write down initial questions, areas for which they need further clarification, to brainstorm challenges that they foresee, etc.
Detailed training for the units that are laid out in the binder will take place in the afternoon on 2/5 & 2/6.

The intervention period will officially begin the week of 2/11 and end the week of 6/3.
[refer to treatment timeline separate document]. The week of 2/11 is when *Week 1* of the treatment timeline will begin with Cycle 1/Unit 1 for the treatment classrooms. The comparison classrooms will continue with their current writing instruction.

I am providing all of you with a packet of teacher logs for your use. You will have one packet for your comparison classrooms and one for your treatment classrooms. It

is critical that **ALL** teachers document (through the logs and communication with me) exactly what writing instruction takes place in the each of the classrooms, especially the comparison classrooms. This is the only way to ensure that the strategies we are using in the treatment classrooms are different than those used in the comparison classrooms. I cannot stress this enough and I am confident that due to my proximity to all of you I will be able to assist you with maintaining the fidelity of this implementation. Step teachers through the logs and how to use them.

Day 1 Teacher Training Power Point

- Steve Graham video (3.22-9.59) – *Importance of Learning to Write Well*
- Explanation of and rationale behind selection of SRSD as the treatment curriculum
- Background and basics of the study – writing, process writing, self-regulation
- SRSD – 6 steps, 3 units of instruction, 3 cycles, 3 writing assessments

Moving forward with the Treatment Curriculum
As I mentioned earlier, the differences between the treatment and comparison classrooms is critical to this study. I would like us to brainstorm about the writing instruction and strategies that are a part of the traditional writing instruction in our classes. I will need your help in creating a resource binder of these strategies. I really need your help with this and without your input on this I cannot maintain the fidelity of implementation for my study – which is a huge threat to the validity of my study.

Disclaimer about protecting students.
It is important to remember that we will only be collecting forms (such as the demographic form and SEWS) from **participating** students. In addition, writing scores will only be collected for **participating** students, as part of this study. In both the treatment and comparison classrooms there will be students who do not consent to participate. These students will still complete all other activities and assessments related to writing but they will not complete the surveys nor will their information be shared with me.

Questions from teachers

Closing remarks – appreciation for their cooperation, importance of communication and my need to be extremely clear about my expectations, please let me know if there is ever a doubt about clarity.

Collection of Consent Forms January 30

Please remind students about the consent forms for the study.

Read to classes:
"Do you all remember the consent forms that I gave you last week? I just want to emphasize to all of you that agreeing to be a part of the study does not involve any

additional work or time on your part. You will be engaging in the same classes, activities, and work regardless of participation in the study. Consent is simply your agreement to allow your scores to be collected and used – confidentially. Student names will not be tied to any scores – all students will receive a coded number for identification purposes."

Make extra copies of the letter available for any student that has misplaced their form and would like another one.

You may offer any of the following possibilities as additional incentive for students:

- Homework assignments
- Extra credit offered
- Competition with other classes/periods

Lastly:
If this does not cause a change, then I can come in and answer questions.

Email Correspondence Feburary 1

Email all teachers – RE: Important information regarding the study – for both Treatment and Comparison classrooms

Consent Forms

1. I need to get more consent forms! My numbers simply are not high enough. So I am going to conduct a raffle. All students that return a completed/signed form will be entered into a drawing for an iTunes gift card. If a student/parent does not want to participate they should simply write NO on the signature page along with the student's name – and they will still receive a raffle ticket. Students will write their name on the ticket and deposit it in the box in their teacher's classroom. I will draw one winner for each teacher (Ms. [redacted] – I will pull two winners since you have more classes participating). Any student who already turned in their form is already entered into the drawing. The drawing will take place after school on Thursday so all forms must be submitted by the end of Thursday.

2. Please read the following script to all of your participating classes (Treatment and Comparison):
    a. *"All students that return a consent form for the dissertation study being conducted by* [redacted] *will be entered into a drawing for an iTunes gift card. One winner will be pulled from all students that enter from my classes. In order to be entered into the drawing your consent form does not have to say that you will participate, it simply needs to be returned. Just write NO on it if you would like. When you hand in your form to me I will give you a ticket, you write your name on the back, and then put it in this box. That's it – pretty simple,*

right? Forms have to be turned in to me by Thursday though if you are going to be entered because the winners will be pulled after school on Thursday. If you already turned in a form you are already entered. Thank you!"

Student Assent Forms and Paperwork

1. Before beginning any of the Writing Lessons I need to have all participating students complete the Student Assent form, the demographic information form, and the Self-Efficacy for Writing Scale (SEWS). This will probably take students between 10-15 minutes to do. Please remember to ONLY give these forms to PARTICIPATING students (only those that we have consent forms). Other students can work on something quietly, complete their writing folder reflection, or answer open-ended reflection questions such as the following:
    a. What is your strength as a writer?
    b. What are your areas of need as a writer?
    c. What can you do to improve as a writer?
    d. How can I help you improve as a writer?
2. Please read the following to students when distributing the Student Assent form, demographic information form, and Self-Efficacy for Writing Scale (SEWS) to PARTICIPATING students:
    a. *"Your parents granted consent for you to participate in a study about writing that is being done at our school. It is important that you also agree to participate in the study so you are being asked to sign a permission form indicating your willingness to participate. It is also important that you know that participation in this study does not entail any additional time or work on your part. It will simply allow the researcher to gather information about you and your writing achievement in a way that will not affect your grades in any way. You will need to provide basic identification information about yourself and complete a short 22-question survey if you agree. We will be completing these tasks today in class. Thank you."*
3. Please be sure to read the directions for the demographic form and the SEWS **aloud** with your students. This will help to ensure that all students properly complete these forms.

Teacher Training Day 2 (February 5 & 6, 12:30 – 3:00, lunch provided)

- Training on SRSD curriculum:
- Share resources from Project Write
- Review six steps
- The IRIS Center for Training Enhancements SRSD Module – Step teachers through this module that provides explicit instruction on how to implement the SRSD curriculum (example is an elementary level one but includes the six steps of the SRSD curriculum)
    - http://iris.peabody.vanderbilt.edu/module/srs/#content

- Review the three units, three cycles and the different writing assessments with teachers
- Discuss and answer questions regarding practice assessments
- Model sample cycle unit with our three strategies (STOP, AIMS, DARE; SCAN; PLANS) – go through with teachers as an authentic modeling exercise using CAPT released writing assessment *Teenagers and Gambling*

Teacher Outline and Script
As we start this new semester, we are going to take this opportunity to really focus on improving your writing skills and taking the time in class to allow you to really reflect on your strengths and weaknesses as a writer. I want you to value the skill of writing and be able to write for a variety of purposes as you progress through school and life. Writing should not feel like a chore or a task but rather you should focus on what you can learn from the writing process and how you can apply/transfer that new learning to future writing challenges.

Teacher Training Day 3 (March 27 12:30 – 3:00, lunch provided)

Week 7 - Follow-Up Training [per the advice of Harris and Graham (authors of SRSD) before beginning the higher level Historical DBQ cycle]

Researcher meets with teachers to discuss the first cycle of instruction with the three units. A CAPT released writing assessment was used as the prompt and accompanying materials. Teachers shared their observations, questions, challenges, and implementation logs with each other. ‘
Since this first cycle of instruction did not involve any historical content, it is important for all teachers to consider how to best prepare students for the more complex historical prompts that will be used for the second and third cycles of instruction. Each grade level will have different writing prompts but the format will be the same. Students will need to read documents, passages, and sources and take a position on a historical issue.

In this training session, teachers will modify the writing prompts so that they are appropriate and accessible for all students, regardless of the type of writing curriculum. Students will complete these two additional writing assessments as part of the writing instruction cycles but these essays will not be scored and recorded as part of the data for the study.

Appendix J: Teacher Training PowerPoint

Self-Regulated Strategy Development (SRSD) Instruction

ADAPTED FROM PRESENTATION CREATED BY HARRIS, K. GRAHAM, S. MASON, L. & FRIEDLANDER, B. (2008). *POWERFUL WRITING STRATEGIES FOR ALL STUDENTS.* BALTIMORE, MD: BROOKES.

The Neglected "R"

"Writing is how students connect the dots in their knowledge…Writing, always time-consuming for student and teacher, is today hard-pressed in the American classroom. Of the three *R's*, writing is clearly most neglected."

(National Commission on Writing, 2003, p.3)

My Rationale

In Connecticut and nationwide, there has historically been intense pressure to teach to the test and this pressure has forced students to rely on formulaic writing with little room for personal expression or connectedness (National Writing Project [NWP] & Nagin, 2006)

Why do Students Struggle?

- Struggling writers do not respond to the abstract terms that are a part of the writing process (brainstorm, plan, draft, and revise), even though they have received writing instruction.
- Many students:
  - Have limited knowledge of what constitutes good writing
  - Utilize ineffective approaches to writing
  - Do not engage in advance planning
  - Rarely make meaningful revisions
  - Have difficulty generating content

Helping Struggling Writers

- Generating content:
  - Struggling writers do not know how to access what they know in writing
  - They do not have as much difficulty when given the opportunity to "say" rather than "write" what they know
- Making revisions
  - Less than 20% of revisions made by struggling writers change the original text
  - Revisions tend to focus on word substitution, mechanical errors, or a neater product because these "rules" are concrete and accessible.

Why do Students Succeed?

- Good writers:
  - Plan
  - Monitor
  - Evaluate
  - Revise
  - Manage the Writing Process

Self-Regulated Strategy Development (SRSD)

- A cognitive teaching strategy that allows students to spend time not only composing written products, but also thinking about what and how they are writing

(Harris & Graham, 1996)

Process Writing

- An instructional method that emphasizes working through various stages of the writing process. Allows both teachers and students to realize not only the complexities of writing but also the critical thinking that accompanies quality writing

(Bean, 2001)

Self-Regulation

- "Self-directive process by which learners transform their mental abilities into academic skills"

(Zimmerman, 2002, p. 65).

- Components of SRSD related to self-regulation
  - Goal setting
  - Self-monitoring
  - Self-recording
  - Self-statement
  - Teacher modeling

SRSD Philosophy

- Provides writers with specific, concrete strategies
- Helps students by providing concrete models for "what has to happen in the mind"
- Authors and creators:
  - Karen Harris & Steve Graham
- Steve Graham Video Link
  - Values behind SRSD
  - PMI activity and discussion

Research Supporting SRSD

- Over 40 studies using the SRSD model of instruction have been reported (elementary through high school)
- Significant findings in four main aspects of student performance:
  - Quality of writing
  - Knowledge of writing
  - Approach to writing
  - Self-efficacy
- Meaningful improvements found with average-to-better writers, as well as students who score at or below the 25th percentile on writing measures

"Pros" of the strategy

- Little to no start up cost
- Materials readily available
- "transparency" of the materials
- Systematic, explicit, and consistent implementation strategy for teaching

Target audience

- Wide range of students from "average-to-better" writers, as well as students who score at or below the 25th percentile on writing measures
- Can be effective in one-to-one, small group, or inclusive classroom instructional setting

Overview of SRSD strategies

- Word choice
  - Vocabulary enrichment
- Story writing
  - POW + WWW
  - POW + C-SPACE
- Narrative, expository, and persuasive writing
  - POW + TREE
  - STOP and DARE (AIMS)
  - Report writing
  - PLANS
- Revising
  - REVISE
  - SCAN
  - Compare, Diagnose, Operate
  - Peer Revising
- Writing for a competency tests
  - PLAN & WRITE
- Reading and writing informational text
  - TWA + PLANS

The Six Steps

- Assessment is integrated in steps of implementation:
  - Stage 1: Develop and activate background knowledge (Class)
  - Stage 2: Discuss the strategy (Class)
  - Stage 3: Model the strategy (Teacher)
  - Stage 4: Memorize the strategy (Student)
  - Stage 5: Support the strategy collaboratively: use scaffolding; critical and longest stage (Teacher & Class)
  - Stage 6: Independent performance (Student)
- Gradual Release of Responsibility

Six Steps, Three Units, Three Cycles

- The six steps form the basis for each lesson
- Lessons fit together to form one unit
- This study will use three units
- The three units will be repeated
- In total, three cycles will be completed
- Three different writing assessments will be used – one for each cycle

Cycle One (Weeks 1-7)

- **STOP, AIMS, DARE** – current issue with personal connection and analysis of multiple texts [Released CAPT assessment A]
- **SCAN** [Released CAPT assessment A]
- **PLANS**
- Three units

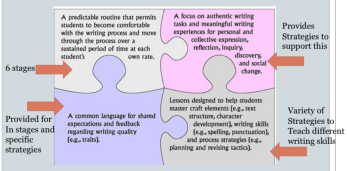
Cycle Two (Weeks 8-12)

- **STOP, AIMS, DARE with embedded PLANS** – content specific with analysis of multiple texts [Historical DBQ A]
- **SCAN with embedded PLANS** [Historical DBQ A]
- Three units collapsed into two

Cycle Three (Weeks 13-16)

- **STOP, AIMS, DARE with embedded PLANS** – content specific with analysis of multiple texts, more complex and contemporary issue [Historical DBQ B]
- **SCAN with embedded PLANS** [Historical DBQ B]
- Three units collapsed into two

Elements of the Strategy



Potential Benefits of My Research

- Allow teachers to learn how to best create a learning environment in which the writing experience is meaningful and encourages students to grow and succeed as writers.
- Identify writing strategies that may be used to bridge the gender gap in writing.

Additional resources

- Interactive tutorial at: http://iris.peabody.vanderbilt.edu
- Graham, S. & Harris, K. (2005) *Writing Better: Effective strategies for teaching students with learning difficulties*. Baltimore, MD: Brookes

Appendix K: SRSD Modeled Lesson: CAPT Released Writing Assessment – *Teenagers and Gambling*

Interdisciplinary Writing
Teenagers and Gambling

Overview

The purpose of this interdisciplinary writing test is to determine how well you can write to persuade others to think as you do about a specific topic. In this test, you will read two short articles about a controversial issue, take a position on the issue, and write a first draft of a persuasive letter. You must support your position with information from *both* of the source materials. Your response will be read and scored by trained readers.

About this Test

In this Interdisciplinary Writing test, you will think about and take a position on a controversial issue: **should schools educate teenagers about the potential dangers of gambling?** While you are working on this test, you will use skills and knowledge you learned in your language arts, mathematics, science, social studies, the arts, and other classes.

The Issue

Should schools educate teenagers about the potential dangers of gambling? Playing poker with groups of friends and gambling online has become popular with many teens. Some parents and experts are concerned that since gambling can have negative, long-term consequences for young people, they should be educated about its risks. Others claim that gambling is safe, harmless entertainment for teens, so spending money for education programs is a waste.

You will read articles about the issue and take a position for or against educating teenagers about the potential dangers of gambling. Your local school board is considering adding gambling education to the required health education classes. Using information from both articles, you must write a letter to your local school board either supporting or opposing the addition of information about the potential dangers of gambling to the health education curriculum.

Source #1:

Poker's Hold on Teens, Tweens
By Steven Barrie-Anthony
The Los Angeles Times
September 30, 2004

Source #2

Will Teens Know When to Fold in the Popular Poker Craze?
By G. Jeffrey MacDonald
The Christian Science Monitor
December 22, 2004

Appendix L: Grade 9 Week by Week Pacing Chart for Intervention Period

Grade 9 Week by Week Pacing Chart for Intervention Period

Week	Date(s)	Treatment	Comparison
1	2/11	STOP, AIMS, DARE Lessons 1-3 CAPT Released A (Metal Bats)	Review and analysis of pretest articles on Attendance Incentives Review of exemplar essays from pretest essay on Attendance Incentives
2	2/18	STOP, AIMS, DARE Lessons 4-5 CAPT Released A (Metal Bats)	Read Metal Bats articles as a whole class read aloud Plan Metal Bats essay
2	2/18	First Draft Practice Assessment #1 CAPT Released A (Metal Bats)	Practice Assessment #1 CAPT Released A (Metal Bats)
3	2/25	SCAN Lessons 1-3 CAPT Released A (Metal Bats)	Using support for arguments In-class debate on Metal Bats Reflect on arguments presented
4	3/4	SCAN Lessons 4-5 CAPT Released A (Metal Bats) Mini-exit quiz Set up writing portfolios	LMC tasks Set up writing portfolios
5	3/11	SCAN Lessons 6-7 CAPT Released A (Metal Bats)	Big idea creation
5	3/11	Final Draft Practice Assessment #1 CAPT Released A (Metal Bats)	ICE responses
6	3/18	PLANS Lessons 1-3	Essay work including planning and outlining
7	3/25	PLANS Lesson 4-7	Essay work including planning and outlining
8	4/1	STOP, AIMS, DARE Lessons 1-2 and PLANS Historical DBQ A (Renaissance)	Formal writing versus conversational writing Essay work including rough drafts and editing
9	4/8	STOP, AIMS, DARE Lessons 3-4 and PLANS Historical DBQ A (Renaissance)	How to structure a paragraph in a persuasive essay Essay work including rough drafts and editing
10	4/22	STOP, AIMS, DARE Lesson 5 and PLANS Historical DBQ A (Renaissance)	Sentence fluency From simple sentences to compound and complex sentences Essay work including final draft
10	4/22	First Draft Practice Assessment	Practice Assessment #4

		#2 Historical DBQ A (Renaissance)	Historical DBQ A (Renaissance)
11	4/29	SCAN Lessons 1-4 and PLANS Historical DBQ A (Renaissance)	Developing two reasons from articles
12	5/5	SCAN Lessons 5-7 and PLANS Historical DBQ A (Renaissance)	ICE responses
12	5/6	Final Draft Practice Assessment #2 Historical DBQ A (Renaissance)	Effectively using the ICE method in persuasive writing
13	5/13	STOP, AIMS, DARE Lessons 1-2 and PLANS Historical DBQ B (Industrial Revolution)	Editing and revising checklists Peer editing
14	5/20	STOP, AIMS, DARE Lessons 3-5 and PLANS Historical DBQ B (Industrial Revolution)	In-class writing workshop Five paragraph outlines
15	5/27	First Draft Practice Assessment #3 Historical DBQ B (Industrial Revolution)	Essay work period Focus on limited use of the verb "to be"
15	5/27	SCAN Lessons 1-4 and PLANS Historical DBQ B (Industrial Revolution)	Practice Assessment #3 Historical DBQ B (Industrial Revolution)
16	6/3	SCAN Lessons 5-7 and PLANS Historical DBQ B (Industrial Revolution)	Using support for arguments Finding credible sources
16	6/3	Final Draft Practice Assessment #3 Historical DBQ B (Industrial Revolution)	Using support for arguments Finding credible sources

Appendix M: Grade 10 Week by Week Pacing Chart for Intervention Period

Grade 10 Week by Week Pacing Chart for Intervention Period

Week	Date(s)	Treatment	Comparison
1	2/11	STOP, AIMS, DARE Lessons 1-3 CAPT Released A (Metal Bats) Research paper	Reading/writing lessons included: Annotation of Truman Doctrine, Summarizing key events, and Evaluating major trends of the time period.
2	2/18	STOP, AIMS, DARE Lessons 4-5 CAPT Released A (Metal Bats)	Writing a thesis statement
2	2/18	First Draft Practice Assessment #1 CAPT Released A (Metal Bats)	Practice Assessment #1 CAPT Released A (Metal Bats)
3	2/25	SCAN Lessons 1-3 CAPT Released A (Metal Bats)	Big ideas to concepts Concepts to generalizations ICE responses
4	3/4	SCAN Lessons 4-5 CAPT Released A (Metal Bats)	"Hero or villain" response on Mao Zedong Evaluation of Cuban Missile Crisis
5	3/11	SCAN Lessons 6-7 Peer Review CAPT Released A (Metal Bats)	Finding credible sources Research paper packet Step-by-step research paper process: Topics, thesis, sources, outlines, first draft, etc.
5	3/11	Final Draft Practice Assessment #1 CAPT Released A (Metal Bats)	Research paper foundations and rough draft
6	3/18	PLANS Lessons 1-3	Political cartoon activity
7	3/25	PLANS Lesson 4-7 Assess strengths and weaknesses in writing looking at feedback from teacher and other students.	Unit reflections including how to best implement changes in their next writing assignments. Assess strengths and weaknesses in writing looking at feedback from teacher and other students.
8	4/1	STOP, AIMS, DARE Lessons 1-2 and PLANS Historical DBQ A (Mao Zedong) Research Paper rough draft	Editing and revising checklists Peer editing
9	4/8	STOP, AIMS, DARE Lessons 3-4 and PLANS Historical DBQ A (Mao Zedong) Research Paper rough draft	Research paper final draft Research paper small group presentations and discussion

10	4/22	STOP, AIMS, DARE Lesson 5 and PLANS Historical DBQ A (Mao Zedong) Research Paper final draft Research Paper small group presentations and discussion	Research paper final draft Research paper small group presentations and discussion
10	4/22	First Draft Practice Assessment #2 Historical DBQ A (Mao Zedong) Research Paper final draft Research Paper small group presentations and discussion	Practice Assessment #2 Historical DBQ A (Mao Zedong)
11	4/29	SCAN Lessons 1-4 and PLANS Historical DBQ A (Mao Zedong)	Primary source reading Evaluating sources in preparation for SBAC essay assignment on US-Iran Relations. Sources included current event news sources, notes from selected scenes of the film Argo and CBS news clips
12	5/5	SCAN Lessons 5-7 and PLANS Historical DBQ A (Mao Zedong)	ICE responses
12	5/6	Final Draft Practice Assessment #2 Historical DBQ A (Mao Zedong)	ICE responses
13	5/13	STOP, AIMS, DARE Lessons 1-2 and PLANS Historical DBQ B (US-Iran Relations)	Essay structure Essay outlining
14	5/20	STOP, AIMS, DARE Lessons 3-5 and PLANS Historical DBQ B (US-Iran Relations)	Editing and revising checklists Unit reflections in preparation for final writing assessment.
15	5/27	First Draft Practice Assessment #3 Historical DBQ B (US-Iran Relations)	Practice Assessment #3 Historical DBQ B (US-Iran Relations)
15	5/27	SCAN Lessons 1-4 and PLANS Historical DBQ B (US-Iran Relations)	Effectively using the ICE method in persuasive writing
16	6/3	SCAN Lessons 5-7 and PLANS Historical DBQ B (US-Iran Relations)	Editing and revising checklists
16	6/3	Final Draft Practice Assessment #3 Historical DBQ B (US-Iran Relations)	Identifying bias Use of transitions

Appendix N: Implementation Timeline for Intervention Period

Pretest

January (1/25 – 1/30): Midterm CAPT essay baseline assessment

Cycle 1

Weeks 1-2 (2/11 & 2/18): Unit 1

STOP, AIMS, DARE – current issue with personal connection and analysis of multiple texts [Released CAPT assessment A – Metal Bats]

S = Suspend judgment
T = Take a side
O = Organize ideas
P = Plan more as you write

A = Attract the reader's attention
I = Identify the problem of the topic so the reader understands the issues
M = Map the context of the problem or provide background information needed to understand the problem
S = State the thesis so the premise is clear

D = Develop your topic sentence
A = Add supporting ideas
R = Reject arguments for the other side
E = End with a conclusion

Prior to Lesson 1: Review Attendance Incentives prompt, offer articles to re-read for homework in preparation for class

Lesson 1
Lesson 2
Lesson 3
Lesson 4
Lesson 5

Weeks 3-5 (2/25, 3/4, & 3/11): Unit 2

SCAN [Released CAPT assessment A – Metal Bats]

S = does it make Sense?
C = is it Connected to my belief?
A = can you Add more?
N = Note errors?

Lesson 1
Lesson 2
Lesson 3
Lesson 4
Lesson 5
Lesson 6
Lesson 7

Weeks 6-7 (3/18 & 3/25): Unit 3

PLANS [Released CAPT assessment A – Metal Bats]

P = Pick goals
L = List ways to meet goals
A = And
N = make Notes
S = Sequence notes

Lesson 1
Lesson 2
Lesson 3
Lesson 4
Lesson 5
Lesson 6
Lesson 7

Cycle 2

Weeks 8-10 (4/1, 4/8, & 4/22): Unit 4

STOP, AIMS, DARE with embedded PLANS – content specific with analysis of multiple texts [Historical DBQ A]

S = Suspend judgment
T = Take a side
O = Organize ideas
P = Plan more as you write

A = Attract the reader's attention
I = Identify the problem of the topic so the reader understands the issues
M = Map the context of the problem or provide background information needed to understand the problem
S = State the thesis so premise is clear

D = Develop your topic sentence
A = Add supporting ideas

R = Reject arguments for the other side
E = End with a conclusion

P = Pick goals
L = List ways to meet goals
A = And
N = make Notes
S = Sequence notes

Lesson 1
Lesson 2
Lesson 3
Lesson 4
Lesson 5
Lesson 6
Lesson 7

Lesson 1
Lesson 2
Lesson 3
Lesson 4
Lesson 5

Weeks 11-12 (4/29 & 5/6): Unit 5

SCAN with embedded PLANS [Historical DBQ A]

S = does it make Sense?
C = is it Connected to my belief?
A = can you Add more?
N = Note errors?

Lesson 1
Lesson 2
Lesson 3
Lesson 4
Lesson 5
Lesson 6
Lesson 7

P = Pick goals
L = List ways to meet goals
A = And
N = make Notes
S = Sequence notes

Lesson 1
Lesson 2
Lesson 3
Lesson 4
Lesson 5
Lesson 6
Lesson 7

Cycle 3

Weeks 13-15 (5/13, 5/20, & 5/27): Unit 6

STOP, AIMS, DARE with embedded PLANS – content specific with analysis of multiple texts, more complex and contemporary issue [Historical DBQ B]

S = Suspend judgment
T = Take a side
O = Organize ideas
P = Plan more as you write

A = Attract the reader's attention
I = Identify the problem of the topic so the reader understands the issues
M = Map the context of the problem or provide background information needed to understand the problem
S = State the thesis so premise is clear

D = Develop your topic sentence
A = Add supporting ideas

Lesson 1
Lesson 2
Lesson 3
Lesson 4
Lesson 5

R = Reject arguments for the other side
E = End with a conclusion

P = Pick goals
L = List ways to meet goals
A = And
N = make Notes
S = Sequence notes

Lesson 1
Lesson 2
Lesson 3
Lesson 4
Lesson 5
Lesson 6
Lesson 7

Weeks 15-16 (5/27 & 6/3): Unit 7

SCAN with embedded PLANS [Historical DBQ B]

S = does it make Sense?
C = is it Connected to my belief?
A = can you Add more?
N = Note errors?

Lesson 1
Lesson 2
Lesson 3
Lesson 4
Lesson 5
Lesson 6
Lesson 7

P = Pick goals
L = List ways to meet goals
A = And
N = make Notes
S = Sequence notes

Lesson 1
Lesson 2
Lesson 3
Lesson 4
Lesson 5
Lesson 6
Lesson 7

Posttest

June (6/10 – 6/14): Final Exam CAPT Essay Assessment

Appendix O: Directions for Pretest Administration

Directions for Pretest/Midterm Administration

Teacher Script:
Before we begin our midterm exam, I would like to go over each section of the test with you and step you through a few pages that of information that I need you to complete.

First, please fill out both the *Midterm Cover Sheet* and the *Cover Sheet* with the following information that is asked for:

Midterm Cover Sheet
Student Name
Student Identification Number – this refers to your BHS student ID number
Teacher Name
Teacher Identification Number – see list
History class period – please use the class period for semester 1, however if you switch teachers or class periods during semester 2 please place a * next to your semester 1 class period

Cover Sheet
Student Identification Number – this refers to your BHS student ID number
Teacher Identification Number – see list
History class period – please use the class period for semester 1, however if you switch teachers or class periods during semester 2 please place a * next to your semester 1 class period

Your midterm in world history contains multiple sections including a persuasive writing assessment. In addition, [Teachers should insert here the information that applies to them regarding the other sections of the exam and their respective grade weightings]

The persuasive writing task will ask you to read two articles about a controversial issue and to then think about and take a position on this issue. Please follow along in your packets as I read the directions aloud. I will pause after each section to see if you have any questions.

Appendix P: STOP-AIMS-DARE Unit Materials

Weeks 1-2 (2/11 & 2/18): Unit 1

STOP, AIMS, DARE – current issue with personal connection and analysis of multiple texts [Released CAPT assessment A – Metal Bats]

S = Suspend judgment
T = Take a side
O = Organize ideas
P = Plan more as you write

A = Attract the reader's attention
I = Identify the problem of the topic so the reader understands the issues
M = Map the context of the problem or provide background information needed to understand the problem
S = State the thesis so the premise is clear

D = Develop your topic sentence
A = Add supporting ideas
R = Reject arguments for the other side
E = End with a conclusion

Prior to Lesson 1: Review Attendance Incentives prompt, offer articles to re-read for homework in preparation for class

Lesson 1 (Steps 1-3, 5; Skip Step 4)

- Step 1: Describe and Discuss STOP – hand out mnemonic chart and direction sheet
- Step 2: Describe and Discuss essay parts using DARE
    - Step 2A: Introduce AIMS mnemonic
- Step 3: Hand out Attendance Incentives Exemplar Essay/Score 6 identifying parts of essay
- Step 5: Review components STOP and DARE

Lesson 2 (Steps 1-3)

- Step 1: Review STOP, AIMS, DARE with students; have them read Attendance Incentives Essay/Score 4 and identify each essay part or which ones are missing
- Step 2: Distribute Cue Cards and Checklist (they serve similar purposes) to students and inform them that they will be using these to help guide them through the essay writing process. Teacher models the use of STOP, AIMS, DARE through scripted "Talk Aloud". Teacher should use the Attendance Incentives essay prompt for this since students are familiar with the content. Teacher will refer to cue cards throughout the process (alternatively the checklist could be used for this)

- Step 3: Students should review and begin to memorize the three strategies. This can be done in a variety of ways. Students have to be able to demonstrate an understanding of the strategies through retelling, paraphrase, etc.

Prior to Lesson 3: Have students read the articles on Metal Bats (depending on the level of your classes and your scaffolding/differentiation needs you might have them annotate, outline, take notes, etc.)

Lesson 3 (Steps 1, 3, 5)

- Step 1: Distribute Transition words handout (linking words) and discuss; have students identify words from the previous two essays on Attendance Incentives
- Step 3: With a partner (another opportunity for differentiation), students will plan and compose a draft of an essay on Metal Bats; talk students through the collaborative practice of walking through the three strategies (STOP, AIMS, DARE) on page 216. The mnemonic chart, directions, cue cards, and brainstorming sheet will be used for this step.
- Step 5: Rehearse the steps with students using "rapid fire" or another test of memorization. Students must be able to name all the steps and describe the information.

Lesson 4 (Revised Step 2)

- Step 2: Students utilize the three strategies (students should use all materials provided) to plan and compose their own individual essay on Metal Bats

Lesson 5 (Revised Step 3)

- Step 3: Students will work in small groups to review each essay and identify the parts and provide feedback

STOP, AIMS, DARE Teacher Talk-Aloud Script

S = Suspend judgment T = Take a side O = Organize ideas P = Plan more as you write	A = Attract the reader's attention I = Identify the problem of the topic M = Map the context of the problem S = State the thesis so the premise is clear	D = Develop your topic sentence A = Add supporting ideas R = Reject arguments for the other side E = End with a conclusion

In this lesson, the teacher will model how to use the strategies outlined above to plan and write a good essay. For this lesson you will need to have a writing prompt selected. In addition, it is important that the teacher has memorized the procedure so that it will be fluent.
A sample script for modeling the strategy is provided below:

Say, *"I am going to how you how to use STOP, AIMS, and DARE together to plan and write a good essay. I will talk aloud as I go. You might be able to help me, but what I really want you to do is listen and watch me work. It is my turn to work and your turn to watch!"*

Model the entire process using the cue cards and the transition/linking words. Follow the steps and statements, using ideas generated for the model essay – Attendance Incentives.

Say, *"First, I need to suspend judgment. That means I won't make up my mind about the topic yet. I need to brainstorm ideas for and against my topic."*

Write two or three ideas for one side and one or two ideas for the other side on the brainstorming sheet.

Introduce the cue cards for Step 1. Say, " *I have three cue cards for Step 1 to help me plan, and they all say 'Suspend Judgment.' Cue Card #1 says, 'Did I list ideas for both sides? If not, do this now.' Let me see…I did that! This is easy to do."*

Say, *"What does Cue Card #2 say? 'Can I think of anything else? Try to write more.' All right, I need to think of more reasons."* Add at least one idea to each side of the brainstorming sheet, pause to think, and then add another idea to one side.
Say, *"Cue Card #3 says, 'Another point I haven't yet considered is…Think of possible arguments.' Do I have any arguments? Yes, I do." Pause to think and then ask, "Are there any points I haven't considered yet? This is hard because I have so*

many ideas already. I need to take my time and think of something someone else would say." Add at least one idea to the brainstorming sheet, preferably on the "For" side.

Say, *"That's great. I'm finished with Step 1, and I have done so much good work. Now I need to do Step 2, which has only one cue card: Cue Card #4. This cue card says, 'Take a side.' That means I have to pick one side as my argument. Which one do I really believe?"* Provide an answer.

Say, *"This cue card also says, 'Place a "+" at the top of one box to show the side you will take in your essay.' This card is the same as the chart where it says 'Take a side.' I can remember this card right away because it is on the Brainstorming sheet."*

Say, *"Step 3 says that I should 'Organize Ideas.' I need to decide which ideas are strong and which ideas are not as strong that I can dispute. This means I should think about all of the ideas I have for my argument."* Read each idea that is on the side you have chosen (the "For" side) and decide if it is a good idea. You should note at least one idea that is not strong and decide aloud to skip it.

Say, *"I now have strong ideas for my argument. I need to decide which ideas I can dispute. That means I need an argument I can reject – one that I can easily say why I do not agree with it."* Choose one argument from the "Against" side of the brainstorming sheet and then think of one more argument. *"I have to choose my arguments carefully so my reader doesn't get confused about which side I am on. I'm really doing well with this plan. I like my ideas. Let me look at the three cards for Step 3. The first card, Cue Card #5, says, 'Put a star next to the ideas you want to use.' I need to choose at least three ideas to use."*

Say, *"What does the second card for Step 3 say? Cue Card #6 says, 'Did I star ideas on both sides? Choose at least ___ argument(s) that you can dispute.' I decided that I had two arguments that I can dispute. The last card for Step 3, Cue Card #7, says, 'Number your ideas in the order you will use them.' I'd better think about this. What makes sense?"*

Bring in the map analogy here. Say, *"Doing things in the correct order, like following directions on a map, will help me guide the reader to agree with what I believe."* Reflect aloud about an order that seems logical to you based on the ideas you have generated.

Say, *"This will be a good essay. I'm really taking my time to plan it out. The next step is 'Plan more as you write. Remember to use all four essay parts and continue planning.' That means I should still think of ideas as I write my essay. Part of this planning process involves following the order provided in Steps 5-8, Cue Cards #9-12. If I make sure that I follow these four cue cards, I will definitely compose a well-organized and developed essay."*

Say, *"I am not going to actually compose my final essay right now but if I was I would be ready for Step #9, Cue Card #13. It has the essay parts reminder D-A-R-E written on it. I know what that means."* Read the card. *"I'm ready to write my essay. I'll just think of DARE as I go."*

At this point, the teacher should use any available time to outline and model as many parts of the essay as possible. The teachers should verify each part that is written by explaining that you have your topic sentence, and so forth. Point out that you can add supporting ideas after you reject your argument for what this means. Use cohesive words sparingly at key places, such as when you refute an argument or with a group of related ideas.

Be sure to elaborate on two or three ideas as you write, and try to revise something as you go. Give a strong, summative conclusion by restating your premise using different words.

After you finish, compliment yourself for the work you have done and then demonstrate how to use the checklist. Mark the checklist for each part and write down the number of ideas selected on the line under the column. If you have met a goal of more than three, you *busted* the chart and can draw a star on top of the column. Thank the students for their help – which may have simply been to pay attention.

Appendix Q: Persuasive Writing Prompt Grades 9 and 10 – Released CAPT Assessment A

Metal Bats

Interdisciplinary Writing
Metal Bats

Overview

The purpose of this interdisciplinary writing test is to determine how well you can write to persuade others to think as you do about a specific topic. In this test, you will read two short articles about a controversial issue, take a position on the issue, and write a first draft of a persuasive letter. You must support your position with information from *both* of the source materials. Your response will be read and scored by trained readers.

About this Test

In this Interdisciplinary Writing test, you will think about and take a position on a controversial issue: **should metal baseball bats be banned?** While you are working on this test, you will use skills and knowledge you learned in your language arts, mathematics, science, social studies, the arts, and other classes.

The Issue

Should metal baseball bats be banned? Metal baseball bats may allow players to hit baseballs harder, but they can sometimes result in serious injury to team members who are hit by the balls. Those who support banning the metal bats feel that wooden bats would reduce the risk of injury. People who oppose the ban point out that metal bats are less expensive than wooden bats and enable players to make more hits and home runs, resulting in an exciting game.

You will read articles about the issue and take a position for or against the banning of metal baseball bats. Connecticut legislators are considering legislation banning the use of metal bats by school and youth league teams. Using information from *both* articles, you must write a letter to your state senator either supporting or opposing the a ban on metal baseball bats.

Source #1:

The Great Bat Debate Continues
Los Angeles Times
June 18, 2006

Source #2

Two Sides to Bat Debate
By Dennis Knight
San Jose Mercury News
April 26, 2006

Appendix R: SCAN Unit Materials

SCAN: Lessons for Revising a Persuasive or Opinion Essay

S = Does it make Sense?
C = Is it Connected to my belief?
A = Can you Add more?
N = Note errors?

Materials needed for unit:

Previously written essay(s)
Six steps for Revising Checklist
SCAN Checklist
Six Steps Cards with prompts OR
Six Steps Cards without prompts OR
SCAN Cue Cards

Lesson 1

Step 1: Write a goal to learn a strategy for revising essays. Each student writes a personal goal on a blank piece of paper; teacher and student signs the paper.

Step 2: Describe the Strategy – "What does the word revising mean?"
Show students six-step checklist – uncover one step at a time, explain each step
Show students SCAN checklist – uncover one step at a time, explain each step

Step 3: Practice the Strategy – Have students memorize and paraphrase the steps using the cards (choose the set appropriate for your students).

Lesson 2

Step 1: Modeling the Strategy – Show students a previously written and revised essay. This essay could be displayed on checklist paper, the chalkboard, or SMARTBoard. Be sure the students can easily see both the essay and the upcoming revisions. Tell them that you will model how to use the six steps and the SCAN strategies to improve their ability to revise their work. Let them know that you will be talking aloud to show them the things you say to yourself when using the strategies ad revising. Model the entire process. Use problem definition, planning, coping, strategy use, self-evaluation, and self-reinforcement self-statements as you model the procedure. The steps and statements below are a guide for the modeling process. Fill in ad lib statements where indicated or where necessary.

Step 2: Say, *"What is it I have to do? I have to revise my essay. Okay the first think I need to do is read the essay."* Point to the first step. Read the essay

out loud and direct the students to read along silently. As you read, make several comments to yourself (e.g., "I really liked that sentence…I need to change that word…Another reason I can add is…"). When you finish reading say, *"That's pretty good but I can make it better. The second thing I need to do is look at the sentence that states what I believe."* Point to the step. With your finger, locate that sentence and underline it. *"Will other people know what I believe? Is it clear?"* Read the sentence out loud. If it is very clear, say so and move to the next step. If not, point how it can be made clearer. Cross out the old sentence and write a new one. *"Now the third thing I need to do is add at least two more reasons why I believe that I do."* Point to this step. *"If I add more reasons that will make my essay stronger. What are more reasons to support my belief?"* Give reasons that you noted during Step 1 while you were reading the essay out loud. Write them down saying them out loud. Before writing, make comments out loud about where you will put the reason (e.g., "I think it will go best here…That looks good and makes my essay stronger…Okay, I need to add another reason…What is another reason for [state belief]…Okay, I'll take my time and let my mind be free. An idea will come to me"). Propose one idea where to put it and then write it in. Say, *"I am now ready to do Step 4."* Point to Step 4. *"When I do Step 4, I will SCAN."* Pull out the SCAN cue cards. *"I will look at this first sentence on my paper and ask myself if it is still clear. Is it connected? Should I add more?"* Model and point to the steps on the steps cards. *"I will now make my changes on the paper copy and note any errors."* Model how to look for capitalization, punctuation, and spelling errors. Involve students in the process whenever possible. Say, *"Now that I have completed Step 4, I need to do step 5."* Point to Step 5 on the steps card. *"Now that I have completed Step 5, I need to do Step 6. I will reread my essay and make any final changes. This will make my essay more polished."* Model the procedures for making changes and additions. Involve the students in the process whenever possible. *"Now that I have finished making revisions, my essay looks much better."*

Step 3: Ask the students to write down some things they can say to themselves while they are revising. They can write these on the SCAN Self-Statements sheet or on a blank piece of paper. Ask the students if they have any questions.
Step 4: Briefly review the six steps and SCAN strategies. Tell the students that next time they will try the revisions strategies for themselves.

Lesson 3

Step 1: Verbal Rehearsal – Say, *"Today, we will memorize the Six Steps for Revising and SCAN. If you know the steps well, you will be able to tell yourself what to do when you are revising an essay."* Lead students through review of the steps following a rapid-fire process. Follow up with each student to ensure that all students are comfortable with the steps.

Step 2: Repeat Steps 1 and 2 with SCAN.

Step 3: Ask the students to revise and add to their Self-Statements sheets based on this lesson.

Lesson 4, 5, 6, 7

Step 1: Ask students to verbally rehearse the six steps and the SCAN strategies. Do not go to controlled practice (Step 2) until all students reach 100% mastery of the six steps and SCAN strategies.

Step 2: Controlled Practice – Tell the students that for the next several days (or however long you see fit) you will practice using the revision procedure. The students will be revising their previously written essays. Give each student a copy of an essay written previously (the initial draft) and make sure it is not one that has been used during the SCAN lessons. Say, *"I want you to revise this essay using the six steps and scan strategies. You may look at the cue cards or self-statements if you need to. I will be here to make sure that you use the revision procedures correctly and to provide help when you need it."* Direct the students to begin practice. Provide as much assistance and prompt as necessary (e.g., "What is the first step?"), but try to let the students work on their own. When you provide corrective feedback:

a. Tell the student what was done incorrectly.
b. Have the student correct the work.
c. Be positive and encouraging.

Step 3: Repeat as long as students need repeated practice.

Step 4: Tell the students that they have done and excellent job learning the procedures. Complete the contract paper written and signed in the first lesson.

Appendix S: PLANS Unit Materials

PLANS: Lessons for Goal-Setting While Writing an Essay

P = Pick Goals
L = List Ways to Meet Goals
A = And
N = Make Notes
S = Sequence Notes

Materials needed for unit:

Previously written essay(s)
PLANS Mnemonic Chart
Learning Strategies Contract
PLANS Worksheet
PLANS Goals Chart
PLANS Cue Cards
PLANS Self-Statements Sheet
PLANS Rehearsal Checklist

Lesson 1

Step 1: Review current writing performance. Ask, "Do you remember the essay you wrote the other day that asked_____?" Ask the students to read their essays and see which parts from previously established criteria they have included. Collaboratively with the students, note in a matter of fact way which parts they have and which parts are missing. Also note that even parts that are included can be improved next time. For example, in a persuasive essay, including more reasons, good reasons, and believable reasons can make the essay more convincing.

Step 2: Establish a goal to learn the strategy. Tell the students that you will teach them a procedure to help them write better essays, stories, descriptions, and so forth. Tell the students that although you will practice the procedure with only one form of writing now (persuasive essays), the procedure can be used for other forms of writing. Have students read and fill out the learning strategies contract indicating their commitment to learning a strategy for writing better papers. Students and teacher should sign the contract.

Lesson 2

Step 1: P for Pick goals. Give each student a PLANS mnemonic chart. They will need to look at each step on their PLANS mnemonic chart as you talk about them.

Cover your PLANS chart so that only the first step shows. Say, "The first thing you need to do when you write a paper is to figure out what you want to

do. In other words, you must Pick Goals for what you want your paper to say. The goals that you set for your paper should direct what you do."

"For example, if your teacher has given you a prompt with the question, 'Should boys and girls play sports together?' and has asked you to write a paper or an essay on what you think about that, the first thing you should do is set goals for the purpose of your paper. I might pick a goal to write a paper that will convince my friends that I am right. Can you think of any other types of goals that I might set?"

Brainstorm ideas for goals. Say, "As you can see, there are many types of goals that will help me write any paper. I can set goals for how much I want to say, for the types of things I want to include, for the types of words I want to use, and so on. Also, the type of goals that I pick will depend on the type of paper I am writing. Some of my goals for an essay will be difference from my goals for a story. To help you pick your goals for your paper, I will give you a PLANS Goals Chart with sample goals. You are to keep this PLANS Goals Chart in your writing folder and you can use it anytime you are asked to write a paper. The goals on the PLANS Goals Chart can be used when writing essay, stories, or reports."

Review each of the goals on the PLANS Goals Chart. Read each goal to the students and have them orally repeat it.

Say, "When using the PLANS Goals Chart, we pick one goal from each section—A, B, and C.

Say, "Now let's return to our PLANS mnemonic chart. If I had to write a paper on whether boys or girls should play sports together, my first step would be to pick my goals." Point to this on the PLANS chart. "I would do this by looking at my PLANS Goals Chart and picking one goal from the A, B, and C sections. Then I would write my goals on a PLANS Worksheet." Show the students the PLANS Worksheet. "For instance, I would pick…" Select "convince my friend," "essay that has all the parts," and "60 words or longer," and explain why you picked each. "Next, I would write each of my goals down on the PLANS Worksheet so that I remember them. Then, I would put a star by the most important one (e.g., 'convince my friends'). Similarly, if you were asked to write a story about a girl on skis, which of the three goals would you pick?" The students should select "fun for my friend to read," "story that has all the parts," and any under section C. If they select a goal that does not work for the prompt, ask the students to justify their selection and then explain why the response was incorrect. Ask, "Which would be the most important goal? Fun to read." Correct the selection, if necessary, and ask the students to justify their selection.

Step 2: L for List Ways to Meet Goals. Uncover the second step on the PLANS mnemonic chart. Say, "Once I have written down my goals, I need to think about how I will meet or accomplish the goals. Next to each goal on the PLANS Worksheet, I would list one or more things that I can do to meet my goals. For examples, if I am writing a paper that will convince my friends that I am right (point to goal on the PLANS Goal Chart), one way I might be able to successfully meet this goal is by examining my reasons to see if my readers might accept them. For example, if I believed that boys and girls should play sports together, and one of my reasons for supporting this belief is that girls are just as strong as boys I would ask myself, 'Would my reader believe this?' If the answer is yes, I would keep it; if the answer is no, I would try to think of a better reason."

Step 3: A. Point out that the A in PLANS doesn't mean anything; it is just a filler letter used to make a word (mnemonic) that will help with remembering the strategy.

Step 4: N for Make Notes. Say, "Once I have finished picking my goals and listing ways to meet those goals, I would make notes about the kinds of things that I might use in my paper." Uncover Step 4. "If I were writing an essay, this might include a statement as to what I believed, possible reasons for that belief, key words I might use, and so forth. If I were writing a story, I might make an outline of who the characters are, where the story takes place, what happens and how the story ends."

Step 5: S for Sequence Notes. Say, "When I finished making all of my notes, I would think about what I wanted to come first in my paper, then second, third, and so forth." Uncover Step 5. "I would put a '1' by what I wanted first, a '2' by what I wanted second, a'3' by what I anted third, and so forth."

Step 6: Write and Say More. Say, "Once I had finished PLANS, I would be ready to write." Uncover Step 6. "My notes would be my plan, and my plan would guide what I would write. However, as I write, I may think of other things to say, and I want to be sure to include them as well. To help me do this, I will remind myself to say more as I write and to remember my goals."

Step 7: Test Goals. Uncover Step 7. Say, "The final step is to test to see if I met my goals. To do this, I would read my paper again and check to see if I met all of the goals that I had set. For example, if I set a goal to write 60 words, I would count the number of words written, write the number next to my goal, and write Yes if I met my goal and No if I did not. For the parts of an essay, I would check to see if I included each part; if so, I would write Yes next to my goal. If I were missing parts, I would write the parts I had left out. For my goal to write a convincing paper, I would ask myself if my paper would convince my friends. If I believed it would, I would write Yes next to my goal; otherwise, I would write No next to it. If I did not meet any of my

goals, I would think about how I might meet those goals on my next writing assignment or revise this paper."

Step 8: Practice PLANS. If time permits, tell the students that they will work on memorizing the steps for planning and writing. Give each student a set of PLANS Cue Cards. Say, "To help you remember the steps, we will do an exercise called rapid fire. We will take turns saying the steps. It is called rapid fire because you are trying to name the steps as rapidly as you can. If you need to look at the cue card, you may; however, don't rely on the card too much because I will put it way after several rounds of rapid fire." Allow the students to paraphrase, but be sure the intended meaning is maintained. Do this with and without the cue card. If the students' responses are correct, make a brief positive comment. If they are incorrect, prompt by pointing to the cue card.

Lesson 3

Step 1: Introduce Modeling. Say, "Today, I will show you how to use PLANS to write a good essay. Please remember that we could use the PLANS for other types of writing too, like stories." Say, "As I show you how to use PLANS to write an essay, I will talk aloud. The things we say to ourselves while we work are very helpful." Model the entire process using the PLANS steps. Use problem definition, planning, self-evaluation, and self-reinforcement self-statements as you model the procedure. Give the students the sentence, "Should boys and girls play sports together?" on a card. Also, have a copy of the same card in front of you. Display your PLANS mneumonic chart so that the students can see it and you can point to each step as you initiate it. Follow the steps and statements provided, contributing ad lib statements where indicated or necessary. Say, "What do I have to do? I have to write an essay about 'Should boys and girls play sports together?' First, I will do PLANS." Point to this on the sheet.

Step 2: PLANS. Say, "To help me do PLANS, I will write the steps on this piece of paper. This will help me remember each step of PLANS. Also, I will use the PLANS Worksheet when I write my goals when I decide the ways to meet my goals, and when I make my notes. Now that I have written PLANS on my paper, I will do the first step of PLANS, which is Pick my goals. I will pick one goal from each section." Point to each section on the PLANS Goals Chart. "As I pick a goal, I will write it in abbreviated form at the top of my paper, and I will leave a little space in between each one so I can List ways to meet goals.

"I have to write a paper on 'Should boys and girls play sports together?' I want to be sure that I pick goals that will be right for this type of paper. This paper will be an essay.

"First, I will read all of the goals under A. Now I have to select a goal for my paper. Which goal should I select? I should select the goal: 'I will convince my friends.'" Write this down. "I am selecting this goal because I will be writing an essay, and essays are used by writers to convince others that they are right. I am going to write an essay that will convince my friends that I am right. I want to be sure my essay will be convincing." Repeat this procedure with the goals under B. You must, however, select the wrong goal- the one for a story. Model how to correct yourself and then self-reinforce; write the correct goal under goal from A. Be sure to leave some space between them. Finally, be sure that you point out why it is important to include all of the parts such as the topic sentence, so that the reader will know what you believe; the reasons so that the reader will know why you believe it; and the conclusion, so that you can wrap up your paper.

Repeat procedures for section C. Say, "Now I need to select a goal for how long my paper will be." Read all of the goals. "My last paper was 42 words long. I would like to write a longer paper this time. Which goal should I select?" IF a student picks 100 words, moderate that by saying, "Let's try 60 or 80. That is more than we wrote last time. If I write a longer essay, I will be able to say more." Write down the goal: I will write a longer paper. "Good, I have selected three very good goals that will help me write a better essay. These goals will guide what I do. I will write and essay that will convince my friends that what I believe is right, that will have all the parts, and that will be _____ words long. Which of these three goals is the most important? That's right, the first one: to convince my friends, that what I believe is right. Let's put a star by it to remind us that this is the most important goal. Great, I've done a good job."

Say, "Now that I have written my goals, I need to list ways to meet them." Point to the step and say, "For each goal, I list at least one way to meet that goal." Listing is done in note form. "My first goal is to convince my friends that what I believe is right. What are some things that I can do to meet this goal? One thing that I can do is be sure that I give good reasons for what I believe. How can I be sure that my reasons are good? I can test each reason I write.

"When making notes, I can ask myself, 'Will my friends buy this reason?' If not, I won't use that reason. So, one way I can meet my first goal is to test my reasons." Write this next to the goal. "Let me ask you a question: Which do you think would be a better essay- a paper with one good reason or a paper with five good reasons? Yes, a paper with five good reasons would be better." Next to the goal, write Try to think of five good reasons. "Great, we have thought of some good ways to help us meet our first goal."

Point to the second goal. Say, "Let's think of some ways to meet our second goal. Can you think of any ways that I can be sure my essay has all the parts?" Use any viable recommendation the students offer and reinforce.

Point to the third goal. Say, " We need to think about how we will meet our third goal, which is to write a paper _____ words long. Can you think of any ways that I can be sure that my paper is _____ words long?" Use any viable recommendations the students offer. Be sure that includes count words and add more detail to his paper (e.g., examples, explanations). "Great, we have done a good job of thinking of ways to meet our goals."

Say, "I need to make some notes for what my paper will say. When making my notes, I want to remember my goals. I will want to first think about what I believe-Should boys and girls play sports together?-and think of good reasons and a good conclusion." Model the process of writing down notes, using strategies, and using self-statements. "When thinking of reasons, be sure to say to yourself, 'Let me mind be free. Good ideas will come to me, I first need to take my time.'"

Say, "I need to sequence my notes, which means I must decide what will come first, second, third, and so forth. What do you think should come first? Yes, what I believe." Put a circled "1" next to that note. Continue sequencing until you are finished. Make corrections and reinforce yourself.

Step 3: Model How to Write the Paper. Say, "I have done a very good job of planning my paper. Now, I need to use PLANS to help me write my paper. As I write, I my also think of other good things to say, and I will want to be sure to use them in my essay." Write the essay while thinking aloud. Be sure to use planning, definition, evaluation, and reinforcement statements (i.e., "What do I need to do next?" "Will my reader understand this?" "Can I say more here?" "Can I elaborate on reasons, give examples, add words, and possibly add more reasons?"). Try to involve the students by asking for their opinion after the first several sentences whenever possible; be sure to use any previously generated strategy.

Step 4: Test Goals. Say, "Great, I think my paper looks very good. Now I want to check to see if I have met my goals. To do this, I will look at each goal, read my paper, and test. If I meet my goal, I will put a Yes next to my goal. If I did not, I will put a No." Evaluate each goal; if the students didn't feel that you met any goals, discuss how you will meet them next time. These can be counted for goals two and three. Ask the students if they have any questions.

Step 5: Self-Statements. Say, "When I showed you how to use PLANS to write a paper, I talked aloud. The things I said to myself helped me write a better essay. For example, when I was trying to think of reasons, what did I

say to help me? That's right. I told myself to 'take my time' and to 'let my mind be free.' These things helped me think of ideas." Record these on a PLANS Self-Statements Sheet. Say, "Can you think of other things that you might say to yourself that would help you write better papers?" Try to get self-statements related to definition, planning, evaluation, and reinforcement, If the students give you negative ideas or statements (i.e., "I'm not goof at thinking of reasons."), briefly discuss how some things we say to ourselves can get in our way. Record the students' self-statements on a self-statements sheet. Be sure to include "Let my mind be free" and "Take my time." Put the self-statements in the students' own words. Say, "We don't have to say these things aloud; once we learn them, we can think them in our heads or whisper to ourselves."

Lesson 4

Step 1: Rapid-Fire Practice. Say, "Today you are going to memorize the PLANS steps. We will take turn s saying the steps. You will then take turns with a partner saying the steps." Do rapid fire with the PLANS Cue Cards. If a student's response is correct, make a brief positive comment; if it is incorrect, prompt the student by pointing to the step on the cue card. After verbal rehearsal, explain to the students that they must be able to name all the steps in an oral quiz. Give them time to rehearse steps. They can use the PLANS Cue Cards. When the students indicated that they have learned the steps, ask them to list the steps orally. Record their performance on the PLANS Rehearsal Checklist. Show each student his or her performance. Describe the steps the student has omitted or named out of sequence. Continue to do this until all of the students can name all steps wit no assistance twice in a row.

Step 2: Review and Practice Goals. Have the students get out their PLANS Goals Chart and make sure they can read or paraphrase each goal; practice as necessary.

Step 3: Review Self-Statements. Have the students get out their PLANS Self-Statements sheet. Briefly review the types of things they can say to themselves.

Lesson 5

Step 1: Collaborative Writing, Say, "For the next several days, you will practice using PLANS to write essays." Have the students get out their PLANS mnemonic chart, Worksheet, and Self-Statements sheets. Also, have them take out the PLANS Goals Chart. Give each student a card with one writing topic. Read the card to the student. Tell the students that together you will write an essay using PLANS. Collaboratively, develop an essay using PLANS; let the students do as much of the work as possible.

Lesson 6

Step 1: Guided Practice. Say, "Today you will practice using the PLANS steps. You will be writing an essay." Give the students a sentence prompt for an essay. Say, "I want you to write this essay using PLANS. If you need to look at the cue cards, you may, but rely on them only when you need to. I will be here to make sure that you use the procedures correctly and to provide help when you need it." Direct the students to begin practice. Prompt and provide as much assistance as necessary. When you provide corrective feedback:

Tell the student what he or she has done incorrectly
Have the student correct the work
Be positive and encouraging

Lesson 7

Develop the Strategy and Self-Regulation. Say, "You have done a good job of learning how to use PLANS to help you write papers. This means you have a tool for helping you write papers, and such a tool is like money in the bank. However, if you keep this procedure stored away in your brain and do not use it, it will never help you write better." Say, "Obviously, you can use this procedure to help you write essays. You can also use PLANS to help you with other types of writing in your classroom." Collaboratively, brainstorm and discuss how the students could use the procedure in writing stories or reports. Ask them how they could use it with classroom assignments. Prompt as necessary. Be sure that they understand that when writing stories or reports, they should use all three steps, but pick different goals. Discuss which goals would be appropriate for stories and which would work for reports. Collaboratively, brainstorm and discuss types of writing assignments you would not use, such as writing notes.

Appendix T: Comparison Classroom Writing Strategies

- Big idea creation
- ICE responses
- Using support for arguments
- LMC tasks
- Sentence fluency
- ICE responses
- From simple sentences to compound and complex sentences
- Formal writing versus conversational writing
- ICE responses
- How to structure a paragraph in a persuasive essay
- LMC tasks
- Five paragraph outlines
- Developing two reasons from articles
- Effectively using the ICE method in persuasive writing
- Peer editing
- Editing and revising checklists
- Using support for arguments
- Writing a thesis statement
- Big ideas to concepts
- Finding credible sources
- Concepts to generalizations
- ICE responses
- Use of transitions in persuasive writing
- Essay structure
- Essay outlining
- ICE responses
- Identifying bias
- Effectively using the ICE method in persuasive writing

Appendix U: Sample Comparison Classroom Writing Materials

How to Write Big idea and Thesis Statements

Follow this process when developing your essay's Big Idea statement and Thesis statement

1. Know your topic! Write down a list of key words, events, and names that are important to your topic.

> *Example:*
> *Topic: Neolithic Agricultural Revolution*
> *List: Domestication, settlement, inequality, agriculture, plow, cities, job specialization, wheel, calendar, farming, social classes, food surplus…*

2. Make a LIST of **concepts** that connect to your research topic. These are themes that are **timeless, universal, and abstract**. That is, they can apply to any time period, they exist for everyone everywhere, and they're something that you can't reach out and touch.

> *Example:*
> *Topic: Neolithic Agricultural Revolution*
> *Concepts: Revolution, Innovation, Change, Progress, Inequality, Conflict, Discovery*

3. Using two or three of your Big Ideas, write a general statement about humanity. Determine the relationship between your ideas. Does one lead to another? Is one a result of the other?

> *Example:*
> *Concepts: Innovation and Revolution*
> *Big Idea Statement: In mankind, innovation leads to revolution.*

4. Ask yourself: How is my Topic an example of this Big Idea statement in THREE ways?

> *Example:*
> *Topic: Neolithic Agricultural Revolution*
> *A) Domestication of Plants and Animals*
> *B) Job Specialization*
> *C) New Inventions*

5. Now, translate your Big Idea Statement to a Thesis Statement. Think of it like a fill-in-the-blank!

> *Example:*
> *Big Idea: In mankind, innovation leads to revolution.*

Thesis: In the Neolithic Agricultural Revolution, innovation led to revolution as seen through the domestication of plants and animals, job specialization, and new inventions.

Possible Concepts

Creation	Jealousy	Inspiration	Greed
Alienation	Destiny	Redemption	Curiosity
Power	Conflict	Communication	Chaos
Competition	Hope	Faith	Revolution
Inquiry	Compassion	Discovery	Change
Bravery	Desire	Tragedy	Sacrifice
Evolution	Wisdom	Emotion	Indifference
Invention	Innovation	Integrity	Persistence

First, let's practice writing your Big Idea…

1. Brainstorm your topic
   a. Your practice topic is the importance of a college education.

   b. What do you know about the importance of a college education?
      Here's a start, now add to it:

      Bachelor's Degrees
      Master's Degrees
      Ph. D.'s
      Jobs

2. Choosing concepts that fit your topic
   a. Your topic is the importance of a college education.
   b. Choose three concepts that relate to this topic:
      i.
      ii.
      iii.

3. Creating the Big Idea Statement
   a. Create a broad statement using two or three of the concepts you just chose.
   b. Remember, do not introduce the topic yet!
   c. _____

4. Now, think of three ways that your topic proves your Big Idea statement.
    a.
    b.
    c.

5. Now, put it all together into a complete thesis statement!

All done? Check it with your teacher for final sign-off.

The writing exercise was successfully completed.

Student Signature: _____

Teacher Signature: _____

Effectively Using the ICE Method in Persuasive Writing

- **I**ntroduce the quote.
- **C**ite the quote.
- **E**xplain how it supports your topic sentence and thesis.

This method should be employed in the writing of body paragraphs.

How do I use this?

1. Determine the topic of your paragraph
2. Find three pieces of evidence that support your topic
3. Incorporate them smoothly into the paragraph
4. Clearly show how the chosen quote relates to the topic

Example (using the NAR Essay):

1. The topic of my paragraph will be technology; specifically how the technology of NAR marked the dawn of civilization.
2. My three pieces of evidence will be: the invention of the wheel; the invention of the plow; and the invention of the calendar.
3. This is where ICE comes in!! Introduce your quote and insert it into the paragraph. *See the reverse of this page for tips

a. Ex. Vivienne Hodges notes that 5000 BC marked the "invention of the wheel; used for transport." (Document 5)

4. Lastly, explain the significance of this quote. How does it relate to my topic of technology and the dawn of civilization?

a. Ex. Thus the wheel made transportation of all forms possible. The wheel increased the efficiency of farmers by providing them with a means of caring for their fields and transporting their crops. The wheel also allowed for more extensive trade. Goods could be carried over long routes to their destinations. The wheel made possible the surplus of food that supported civilization and the cultural diffusion that promoted growth and development

This seems time-consuming.

At first, but you will become pros at this!

But is it worth it?

This skill will support you throughout high school, into college, and beyond. Persuasive writing is a necessary skill and ICE is key to successful persuasion.

Handy Tips for using the ICE Method

*For **Introducing** a quote:*

When using the author's name to introduce a quote, use a variety of phrases.

- In The Alphabet," John Smith writes, "---"
- In The Alphabet," John Smith observes, "---"
- In The Alphabet," John Smith remarks, "---"

The verb you choose (i.e. 'writes' or 'observes') can help the reader understand your position. For example, the verb "informs" is positive while the verb "alleges" is negative. Verbs like "observes" and "writes" are neutral; neither good nor bad.

Other verbs you may consider using are:

Continues	Explains	Remarks	Charges	Criticizes
Expresses	Reports	Claims	Declares	Illustrates
Determines	Implies	Shows	Describes	Points Out
Concurs	Confirms	Argues	Proposes	Suggests
Maintains	Asserts	Mentions	Examines	Believes

Sometimes you might want to use a colon introduction, like this: In The Alphabet," John Smith offered this explanation: "A comes before B because it is better."

You may also choose to begin your quotation in the middle of the writer's sentence. You can do so, like this: In The Alphabet," John Smith proved that "S is the most entertaining letter to write."

*For **Citing** a quotation:*

Use the least amount of a quoted passage you can to support your point. Don't quote the less relevant parts; use only what supports your point directly.

Choose carefully. Your quotation should clearly relate to your position.

*For **Explaining** a quote:*

Don't assume the reason you are using a piece of textual evidence is obvious to your reader. For every quotation you use, expect to write two or three lines of your own analysis and explanation after it.

So, what? This is the part where you tell the reader why the quotation is important. Explain how the quotation supports your thesis.

ICE Practice

"Children must practice what they learned at school. It helps write important information and skills into long-term memory. Additionally, many skills require a great deal of practice for mastery. In addition, homework helps develop independence in children, the children work independently when completing their homework. It also gives a sense of responsibility and self-discipline. As homework assignments have a deadline on them, children learn to complete tasks on time. Homework also helps bridge the gap between teachers and parents. As parents monitor their children's homework, they stay connected to their child's progress and classwork. "

-homework-help.net

***Skill**: Choosing Appropriate Quotations*

Read the above quote about homework and complete the following skill-building tasks.

1. The topic of your body paragraph is homework as a memory aid. Find a quote that supports this topic.

_____

_____

_____

2. The topic of your body paragraph is homework as a skill-builder. Find a quote that supports this topic.

_____

_____

_____

3. The topic of your body paragraph is homework and its importance to studentship, the practice of and skills related to being a student. Find a quote that supports this topic.

_____

_____

_____

***Skill**: Introducing and Citing the Quotation*

Using the provided 'tips', introduce and cite the quotation you used in Number 1.

_____

_____

_____

***Skill**: Explaining the Quotation*

For each quotation you use, you must consider how it supports your thesis.

Imagine that your thesis is as follows:

Homework is a necessary element of school because it builds students' knowledge, encourages skills practice, and helps children become better students.

Take your response to the previous task and rewrite it below, adding your explanation that links it back to your support topic of 'building students' knowledge' and your thesis.

All done? Check it with your teacher for final sign-off.

The writing exercise was successfully completed.

Student Signature: _____

Teacher Signature: _____

From Simple Sentences to Compound and Complex Sentences

Combining simple sentences to make complex sentences is an important exercise to help you advance in your writing abilities.

What does this mean?

A simple sentence is an independent clause, meaning it has both a subject and a verb and it represents a complete thought. It can stand alone – but that doesn't mean it should!

Ex. "I learned to paint. I painted a sparrow." These are both simple sentences

A compound sentence is one that combines two independent clauses.

Ex. "I learned to paint, then I painted a sparrow." This is a compound sentence.

A complex sentence includes both an independent clause AND a dependent clause. A dependent clause is something that cannot stand alone as a sentence, like, "Even though I just learned." That can't stand alone! It needs to be paired with an independent clause.

Ex. "Even though I just learned, my painting came out pretty well."

Exercise 1: Write ten simple sentences about school. Follow the example given.

1. I see my friends at school.
2.
3.
4.
5.
6.
7.
8.
9.

10.

Exercise 2: Turn those ten simple sentences into five compound sentences.

Tips: Use a semicolon between two independent clauses.

Use a comma or a conjunction between two independent clauses, like for, and, nor, or, yet, so, but…

1.

2.

3.

4.

5.

Exercise 3: Choose two of your simple sentences and combine them into a complex sentence, using words to introduce them.

Fun fact: Those words that introduce them are called subordinating conjunctions.

Subordinating conjunctions to help…

After	Although	As	As if	As long as
As much as	As soon as	As though	Because	Before
Even if	Even though	If	If only	Inasmuch
In order that	Lest	Now that	Once	Provided that
Rather than	Since	So that	Than	That
Though	Till	Unless	Until	When
Whenever	Where	Whereas	Wherever	While

1.

Just remember! Avoid run-on sentences (which are improperly joined independent clauses) and fragments (which are dependent clauses standing alone).

Exercise 4: Improving Sentence Structure

For each excerpt from a NAR essay, improve the sentence structure by combining simple sentences into compound and/or complex sentences.

1. "After NAR, people didn't need to follow herds of animals. They could kill the animals that they domesticated."

2. "After NAR, people could have more children. They weren't moving from place to place."

3. "Having a larger amount of food helped with supporting larger societies. Having more food also lead to being able to trade."

4. "It was also a cause for division of labor, over time. With a more dependable food supply, less farmers were needed. Now that less farmers were needed people could go and specialize in other forms of work."

Challenge Sentence

Turn this bundle of simple sentences into ONE sentence without losing meaning!

"With domestication, they were able to make clothing. They would use sheep for wool to stay warm. Also, later on while they were still figuring everything out, they found that not one were the cattle good for meat, but the cows could get milked and they could have drinks as well."

All done? Check it with your teacher for final sign-off.

The writing exercise was successfully completed.

Student Signature: _____

Teacher Signature: _____

Formal Writing vs. Conversational Writing

Q: What is formal writing?
A: Formal writing is academic writing; it uses proper English to inform or request something from the reader. Essays are an example of formal writing.

Q: What is conversational writing?
A: Conversational writing is what we do when we 'write like we talk.' Conversational writing has its place, but not in essay writing.

Tips for Moving from Conversational Writing to Formal Writing

1. Use the *past tense*! This is history; it already happened. The only time you can skip this rule is if you are introducing a quote: "The author says…"

No: The domestication of animals **allows** people to settle in one location and accumulate goods.

Yes: The domestication of animals **allowed** people to settle in one location and accumulate goods.

2. Avoid using slang or jargon; the informal, phrases we might use in casual conversation.

No: NAR allowed people to **go the extra mile** and specialize in specific jobs. It is **crystal clear** that job specialization helped civilization advance.

Yes: NAR allowed people to specialize in specific jobs and **become more efficient**. It is **clear** that this job specialization helped civilization advance.

3. Do not use question marks or exclamation points, unless it is in a quote. Avoid asking questions all together and exclamation points just aren't necessary.

No: Where would civilization be without the Neolithic Agricultural Revolution**?** It would be nowhere**!**

Yes: Civilization would not exist if the Neolithic Agricultural Revolution had never occurred**.**

4. Avoid using contractions, or shortened versions of words or phrases.

No: Before NAR, humans **couldn't** settle down in one place.
Yes: Before NAR, humans **could not** settle down in one place.

5. Spell numbers out up to one hundred. Over one hundred, you may use the numerical form.

No: **3** inventions that developed from the Neolithic Agricultural Revolution were the plow, the loom, and the wheel.

Yes: **Three** inventions that developed from the Neolithic Agricultural Revolution were the plow, the loom, and the wheel.

6. Use an active voice instead of a passive voice. What does this mean? Say, "John threw the ball" instead of "The ball was thrown by John."

No: Social inequality **was caused by** the Neolithic Agricultural Revolution.

Yes: The Neolithic Agricultural Revolution **caused** social inequality.

7. Under no circumstances should you use 'I' or 'you' in an essay.

No: **I** think that the Neolithic Agricultural Revolution allows **you** to live in a comfortable home with a steady source of food.

Yes: The Neolithic Agricultural Revolution allows **one** to live in a comfortable home with a steady source of food.

*This example also breaks Rule Number One

8. Do not overuse 'this', 'these', 'it', 'they', etc. Make sure that what you are referring to is clearly understandable.

No: **This** allowed **them** to settle down and get **what they needed** more regularly.

Yes: **The Neolithic Agricultural Revolution** allowed **early humans** to settle down and get **food** more regularly.

9. Proofread. Proofread. Proofread. Self-Explanatory? Yes.

10. Use transitions to help your reader follow the sequence of ideas. Don't just jump from one idea to the next; create a link between them.

No: The plow was an important invention of the Neolithic Agricultural Revolution because it allowed farmers to tend their fields more efficiently and produce more food. The loom was an important invention that helped early humans make clothing.

Yes: The plow was an important invention of the Neolithic Agricultural Revolution because it allowed farmers to tend their fields more efficiently and produce more food. **Similarly**, the loom was another important invention because it helped early humans make clothing.

Moving from Conversational Writing to Formal Writing: Practice

Rewrite the following statements from NAR essays to make them more formal. Keep in mind the ten rules!

1. Obviously food is a necessity for survival and hunting and gathering just wasn't providing it.

2. All of these factors come into play when showing that the agriculture was one of the reasons that the NAR as the dawn of civilization.

3. Where would you be without communication? Even today, it is one of the most important aspects of life.

4. Trade and communication were encouraged by the invention of the wheel.

5. Domestication allowed them to store a surplus of food. This was a game changer because this meant that they could have food even when the weather was bad.

6. The domestication of plants means farming. The domestication of animals means taming animals and keeping them for food or goods.

7. The 3 big inventions that came out of NAR were the wheel, the plow, and the calendar.

8. Without NAR, you wouldn't have been able to live in a comfy home or have a steady supply of food.

_____

_____

_____

9. The Neolithic Agricultural revolution led to the development of civilization in a number of ways.

_____

_____

_____

10. Trade allowed them to get stuff more easily. They used the rivers and put it all in boats for travel.

_____

_____

_____

All done? Check it with your teacher for final sign-off.

The writing exercise was successfully completed.

Student Signature: _____

Teacher Signature: _____

Appendix V: Sample Teacher Writing Curriculum Implementation Log – Treatment

Teacher Writing Curriculum Implementation Log: Treatment Group
Writing Program with Embedded Self-Regulation Strategies

Teacher ID: 9C **Class ID:** Period 9C-7

Date	Description of Class	SRSD Strategy Implemented	Length of Class	Approximate time spent on writing instruction
2/11/13	1. Introduced SRSD Curriculum 2. Reviewed Attendance Incentives prompt 3. Offered articles to re-read for homework in preparation for next class. 4. Content lesson for remainder of class	N/A	57	30
2/12/13	STOP, AIMS, DARE Lesson 1 1. Described and Discussed STOP – handed out mnemonic chart & directions. 2. Described and Discussed essay parts using DARE; Introduced AIMS mnemonic. 3. Handed out Attendance Incentives Exemplar Essay/Score 6. 4. Mini exit quiz (STOP, AIMS, DARE)	STOP, AIMS, DARE	57	57
2/14/13	STOP, AIMS, DARE Lesson 2 1. Reviewed STOP, AIMS, DARE with students; read Attendance Incentives Essay/Score 4 and identified essay parts. 2. Distributed Cue Cards and Checklists to students. Teacher modeled use of STOP, AIMS, DARE. 3. Students reviewed and began to memorize these three strategies.	STOP, AIMS, DARE	57	57

2/15/13	STOP, AIMS, DARE Lesson 3 1. Distributed Transition words handout (linking words) and discussed; had students identify words from the previous two essays on Attendance Incentives. 2. With a partner, students planned and composed a draft of an essay on Metal Bats; used the collaborative practice of walking through the three strategies (STOP, AIMS, DARE). 3. Rehearsed the steps with students using "rapid fire".	STOP, AIMS, DARE	57	57
2/18/13	STOP, AIMS, DARE Lessons 4-5 1. Students utilized the three strategies to plan and compose their own individual essay on Metal Bats.	STOP, AIMS, DARE	57	57
2/19/13	STOP, AIMS, DARE Lessons 4-5 1. Students worked in small groups to review essays, identify parts and provide feedback. 2. Set up writing portfolios 3. Reflection on STOP, AIMS, DARE	STOP, AIMS, DARE	57	57

Appendix W: Sample Teacher Writing Curriculum Implementation Log – Comparison

Teacher Writing Curriculum Implementation Log: Comparison Group

Traditional Writing Program without Embedded Self-Regulation Strategies

Teacher ID: 10B **Class ID:** Period 10B-6

Date	Description of Class	Type of Writing Instruction	Length of Class	Approximate time spent on writing instruction
2/12/13	1. Reviewed and analyzed pretest articles on Attendance Incentives as a class. 2. Reviewed exemplar essays from pretest essay on Attendance Incentives. 3. Content lesson for remainder of class	Reading and Modeling	57	30
2/13/13	1. Read Metal Bats articles as a whole class. 2. Debated about Metal Bats. 3. Homework: Reflected on arguments	N/A	57	0
2/14/13	1. Lesson on big ideas and thesis statements a. Brainstormed topics. b. Wrote down a list of key words, events, and names that are important to topic. c. Made a list of concepts connected to research topic. d. Chose concepts that fit topic. e. Created big idea statements. f. Used big ideas to write general statements. g. Translated big idea statement to a thesis statement. 2. Outlined Metal Bats essay 3. Wrote introduction to Metal Bats essay	Modeling and Practice	57	57
2/15/13	1. Lesson on how to effectively	Modeling	57	57

	use the ICE method in persuasive writing a. Introduce the quote b. Cite the quote c. Explain how it supports topic sentence and thesis 2. Students completed ICE practice activities	and Practice		
2/19/13	1. Students wrote Practice Assessment #1 CAPT Released A – Metal Bats	Practice	57	57
2/20/13	1. Reflected on essays 2. Peer-editing and teacher-editing 3. Homework: Rewrote essays	Reflection and Editing	57	57

Appendix X: Persuasive Writing Prompt Released CAPT Assessment *Attendance Incentives*

(Pretest – Grades 9 and 10)

World History
Interdisciplinary Writing – Attendance Incentives
Five Paragraph Persuasive Essay

Overview

The purpose of this interdisciplinary writing test is to determine how well you can write to persuade others to think as you do about a specific topic. In this test, you will read two short articles about a controversial issue, take a position on the issue, and write a first draft of a persuasive letter. You must support your position with information from *both* of the source materials. Your response will be read and scored by trained readers.

About this Test

In this Interdisciplinary Writing test, you will think about and take a position on a controversial issue: **should schools reward students for attendance?** While you are working on this test, you will use skills and knowledge you learned in your language arts, mathematics, science, social studies, the arts, and other classes.

The Issue

Should schools reward students for attendance? In an effort to encourage students to attend school regularly, some schools offer incentives, such as money or prizes. Principals and parents who support the idea claim that incentives cause students to take their school attendance seriously. Opponents believe that the purpose of attending school is to learn, not to earn money and prizes.

You will read articles about the issue and take a position for or against attendance incentives. Your high school principal is considering implementing an attendance incentive program in your school. Using information from *both* articles, you must write a letter to the principal of your high school either supporting or opposing attendance incentives.

Source #1:

School Incentive Awards Increase Attendance, Criticism
By Sarah Viren
Houston Chronicle
May 6, 2008
.

Source #2

Too Young to Drive, She Wins a Car
By Karl Stampfl, Bonnie Miller Rubin, and Kristen Kridel
Chicago Tribune
June 24, 2008

Appendix Y: Persuasive Writing Prompt *Biodiesel Production* (Posttest – Grades 9 and 10)

Interdisciplinary Writing
Biodiesel Production

Overview

The purpose of this interdisciplinary writing test is to determine how well you can write to persuade others to think as you do about a specific topic. In this test, you will read two short articles about a controversial issue, take a position on the issue, and write a first draft of a persuasive letter. You must support your position with information from *both* of the source materials. Your response will be read and scored by trained readers.

About this Test

In this Interdisciplinary Writing test, you will think about and take a position on a controversial issue: **should states encourage biodiesel production?** While you are working on this test, you will use skills and knowledge you learned in your language arts, mathematics, science, social studies, the arts, and other classes.

The Issue

Should states encourage biodiesel production? Biodiesel is non-petroleum-based diesel fuel made from processing vegetable oils or animal fat. As a result of the Federal Energy Policy Act of 2005, some states offer financial incentives to encourage citizens to produce biodiesel from such products as soybeans, peanuts, used cooking oil, and chicken fat. Supporters of biodiesel production claim that the fuel is a clean, renewable energy source. Biodiesel's opponents question the safety of the production process and the environmental impact of the fuel.

You will read articles about the issue and take a position for or against biodiesel production. Connecticut legislators are considering legislation that would encourage biodiesel production. Using information from both articles, you must write a letter to your state senator either supporting or opposing biodiesel production.

Source #1:

For Fuel, N.C. Looks Homeward
By Kathryn Thier
The Charlotte Observer
December 27, 2007

Source #2

Farmers May Have New Options With Alternative Fuels
By Peggy Ussery
Dothan (Alabama) Eagle
February 13, 2008

Appendix Z: Persuasive Writing Prompt Grade 9 Historical DBQ A – *Renaissance* Essay

Document-Based Question: Impact of the Renaissance

Background: Beginning in the late 14th century, European scholars became more interested in studying the world around them. Their drive and discoveries issued in a dawn of a new age – the Renaissance, or "rebirth." New ideas such as humanism, perspective, republicanism, and advances in fields of philosophy, art, mathematics, science, and more resulted from the inquisitive nature of the era.

Task: After analyzing the following sources, respond to the following question in a 5-paragraph persuasive essay:

What was the legacy of the Renaissance?
In other words…
What was the impact did the Renaissance have on the modern world?

Name: _____

Date: _____

Period: _____

Doc. #	Theme(s)/Concept(s)	Summarize document/How does it connect to theme/concept
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Thesis Statement:_____

_____

_____

_____

_____

Big Idea statement:

_____

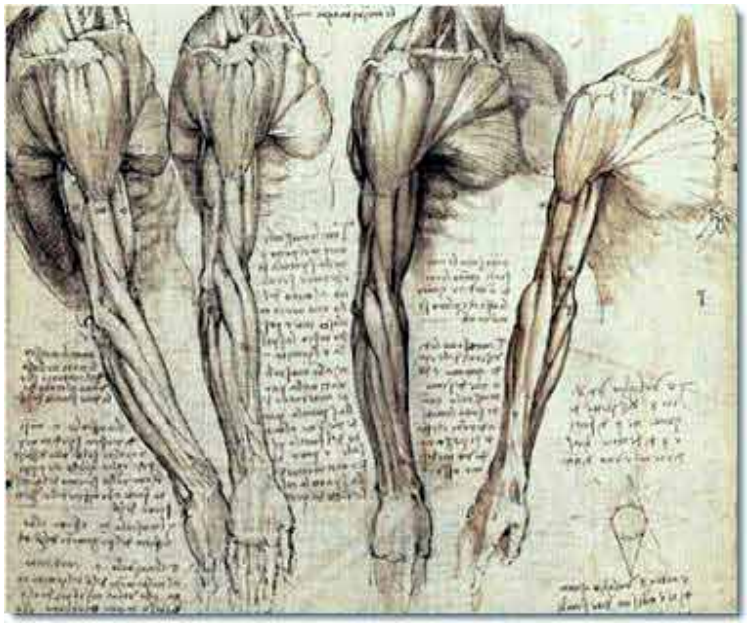
_____

_____

_____

_____

Document One
Study of Arms and Shoulders, by Leonardo da Vinci



What impact might da Vinci's study have had on the world of medicine and science?

Document Two
The Spread of Printing, from *The Harry Ransom Center* at the University of Texas at Austin.

"Gutenberg's printing technology quickly spread from Mainz to Subiaco in Italy (1465), Paris (1470), and London (1476). By the beginning of the 16th century, there were approximately 240 printing shops in Europe. The first press in the Americas was set up in Mexico City less than 50 years after Columbus's first voyage. The first press in what is now the United States was set up in Cambridge, Massachusetts in 1638 and began printing in 1639, only 19 years after the arrival of the Mayflower. The first items printed were a Freeman's Oath, an almanac for 1639, and in 1640 the Bay Psalm Book."

What impact did Gutenberg's printing press have on literacy, books, and religion?

Document Three
Michelangelo's *David,* commissioned 1501
Michelangelo's *Dying Slave*, commissioned 1513

What do these statues suggest about Michelangelo's knowledge of human anatomy?

_____

_____

How do these statues demonstrate advances and changes in art?

_____

_____

Document Four
Leonardo Bruni's '*On Learning and Literature'*

> "To sum up what I have endeavored to set forth. That high standard of education to which I referred at the outset is only to be reached by one who has seen many things and read much. Poet, Orator, Historian, and the rest, all must be studied, each must contribute a share. Out learning thus becomes full, ready, varied and elegant, available for action or for discourse in all subjects."

According to Bruni, what should one study?

_____

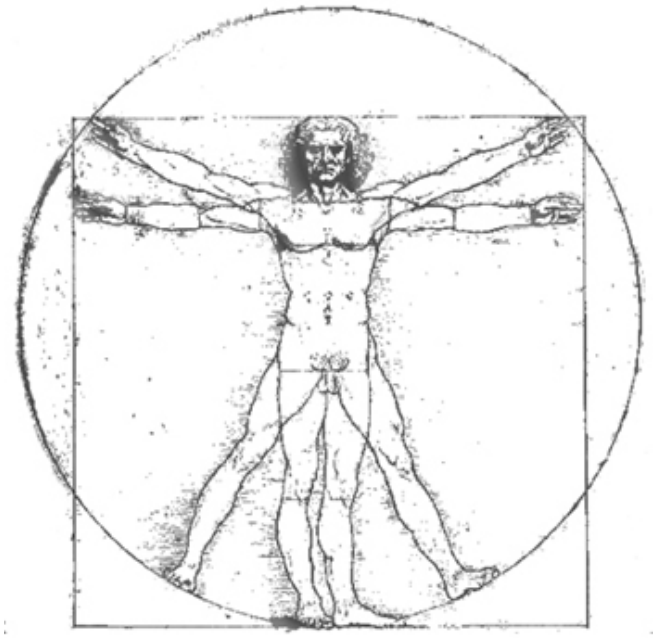
_____

Document Five
Milestones in the History of the Printing Press, compiled by Travis Brown.

1440 Gutenberg completed his wooden press which used movable metal type. 1444 Gutenberg returns to Mainz and sets up a printing shop 1446 Gutenberg prints the "Poem of the Last Judgment" 1450 Gutenberg' formed a partnership with the wealthy Johann Fust 1450 Gutenberg begins work on a Bible, the first is 40 lines per page. 1452 Gutenberg begins printing the 42-line Bible in two volumes. 1455 Gutenberg completed work on what is estimated to be 200 copies of the Bible 1499 Printing had become established in more than 2500 cities around Europe. 1499 An estimated 15 million books have been press printed, representing 30000 book titles.

According to the above timeline, what impact did the printing press have one religion, education, and literacy?

Document Six
Leonardo da Vinci's *Vitruvian Man*, c1487



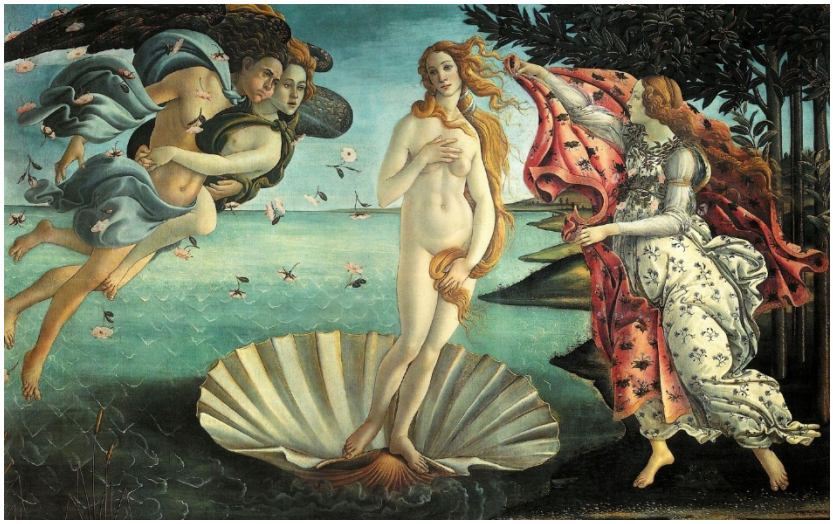
Based on this sketch, what was da Vinci interested in?

Document Seven
Alberti's *Self Portrait of a Universal Man*

"His genius was so versatile that you might almost judge, all the fine arts to be his… He played ball, hurled the javelin, ran, leaped, wrestled, and above all delighted in the steep ascent of mountains… He learned music without teachers and his compositions were approved by learned musicians… When he had begun to mature in years, neglecting everything else, he devoted himself entirely to the study of letters, and spent some years of labor on canon and civil law… At the age of twenty-four he turned to physics and mathematical arts…. Thus showing by example that m en can do anything with themselves if they will…"

According to this man, what is the ideal man skilled in? What does the ideal man do?

Document Eight
Botticelli's *The Birth of Venus*, 1485



What major changes in art does this painting represent?

How is this painting a humanist painting?

Document Nine
The Humanism of the Renaissance by Ray Smith

Because the humanism movement took longer to move into Northern Europe, its arrival and acceptance coincided with the Reformation. Sometimes northern humanism is identified with Christian humanism. Christian humanism attempted to use the scholarly techniques of humanism and apply them to the study of the Bible while ignoring prior medieval interpretations.

Humanists also read biblical texts in their original Greek and Hebrew and discovered discrepancies among the sources. These discrepancies led to more questions about the Catholic Church's policies and practices. These questions evoked more support for the reform movement.

How did humanism impact religion during the Renaissance?

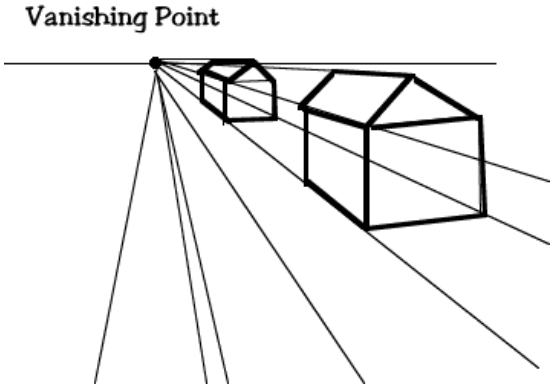
_____

_____

_____

Document Ten
Linear Perspective, defined by Christopher W. Tyler and Amy Ione

Linear Perspective is the mathematical representation of three-dimensional space on a two-dimensional picture plane. It was one of the lasting achievements of Renaissance art.



How did linear perspective mark a major change in art?

_____

_____

How did linear perspective and the vanishing point affect Renaissance art?

_____

_____

Document Eleven
Renaissance Religion, compiled by Oracle Education Foundation

"Religion was one of the aspects of the Renaissance that changed drastically over a few centuries.

Before the Renaissance, during the Middle Ages, the Catholic Church was dominant in most states of Europe. The Pope was the singular most influential and feared bodies in politics. At this time, the church would be the center of all community life, especially because the clergymen were often the only people in a town who were literate. Before the Renaissance, the church was the undisputed dominant force of order.

As the Renaissance started to blossom, the church was still the center of life and a refuge from the horrors of war and plague.

However, by this time various factors had begun to act against the church's influence. As the Renaissance was re-awakening, it was also a rebirth of thought. So various people began taking up their own views and opinions of the world and began questioning the church and the Pope. The major facts that were weakening the church's influence included the Rise of Humanism, the invention of the Printing Press, the awareness of corruption in the church, and the work of individual Reformers."

How did religion change during the Renaissance Era?

_____

_____

_____

Why did religion change during the Renaissance?

_____

_____

_____

Appendix AA: Persuasive Writing Prompt Grade 10 Historical DBQ A – *Mao Zedong: Hero or Villain* Essay

Document-Based Question (DBQ)
Mao Zedong: Hero or Villain?

Task

Read and annotate the passages/documents provided and answer the guiding questions that follow. Use these documents to plan and organize, then write a five-paragraph essay that takes a position on the question below.

Question

Should Mao Zedong be regarded a hero or a villain?

Documents/Passages

Mao is the "sun in the sky." He is considered the greatest leader in Chinese history. Mao freed China from its medieval backwardness and transformed it into a modern nation. Under Mao's leadership, China was transformed. What had taken centuries in the West, took only decades in China. China made the leap from a semi-colony to a Great Power.

(1) Why is Mao considered the "sun in the sky" in Chinese history?

Mao liberated the Chinese people from economic exploitation and social oppression. He freed China from its Confucian past, gave women equal status in Chinese society, opened China to the west and expanded China's economy. China's economy grew at an average annual rate of 11% to 15% per year, thereby creating the industrial infrastructure that laid the basis for the economic transformation that took place during the rule of Deng Xiaoping.

(2) How did Chinese life improve under Mao?

According to Lee Feigon, author of Mao – A Reinterpretation, the Cultural Revolution transformed China for the better. During the Cultural Revolution, Mao battled corruption, streamlined bureaucracy, strengthened the economy, reduced and decentralized Soviet-style bureaucracy that was threatening to choke China, promoted artistic and educational reform, and worked towards social justice and the feminist ideal.

(3) How did the Cultural Revolution change China?

"Although urban schools closed for a time, Mao used the Cultural Revolution to dismantle elitist and formalistic educational system that the country had returned to in the early 1960s. He shifted resources to rural education, in the process radically expanding China's educational system."

- Dongping Han, "Impact of the Cultural Revolution on Rural Education and Development"

(4) How did China's educational system improved as a result of the Cultural Revolution?

The Great Leap Forward was a failure. Rather than a leap forward, it became a lurch sideways. By 1961, China was on the brink of economic ruin and internal collapse. As a result of the loss of fertile farmland and poor management of what farmland remained, the annual harvest declined. The result was widespread famine. Industrial output also fell. Even Mao himself was forced to admit that his idea was a disaster. He was forced to step down from his post as chairman of the CCP.

(5) Why was Mao forced to step down from his post as chairman of the Chinese Communist Party?

Mao launched the Great Proletarian Cultural Revolution in 1966. The Cultural Revolution remains a titanic catastrophe in which human rights, democracy, the rule of law and civilization were crushed. During the decade that followed, literally millions of people were sacked, imprisoned and otherwise ostracized for their hidden 'bourgeois tendencies,' while tens of thousands were executed. Mao encouraged students to rebel against authority, inform on their politically incorrect seniors, and join the Red Guard – the ideological militia that pushed the Cultural Revolution forward. China collapsed into a state of near anarchy. Schools shut down, offices closed, transport was disrupted – it was so bad that even today, the full history is still far from known. While the Cultural Revolution 'officially' ended in 1969, and the worst abuses stopped then, the politically charged atmosphere was maintained until Mao's death in 1976.

(6) How did the Cultural Revolution affect China?

The Cultural Revolution had a disastrous effect on the educational system and the scientific community within China; an effect that was felt well into the late 80's. Those people in China who were between the ages of 15 to 25 during the period of the revolution are now referred to as the "lost generation." This is because they are the ones who lost out: losing the chance for an education, losing the chance for a normal youth.

(7) Who were the "lost generation?"

Mao's rule brought about more deaths of his own people than any other leader in history. The total death toll is only exceeded by all the dead people of World War II. Some 12 to 15 million deaths can be attributed to Stalin. The systematic elimination of the Jews under Hitler was approximately 6 million. Under Mao, over 40 million people lost their lives.

(8) Was Mao's rule more brutal than that of Stalin or Hitler?

According the Chen Yuen, “Had Mao died in 1956, his achievements would have been immortal. Had he died in 1966, he would still have been a great man. But he died in 1976. Alas, what can one say?

(9) What conclusion can you draw from this statement?

Appendix BB: Persuasive Writing Prompt Grade 9 Historical DBQ B – *Industrial Revolution* Essay

Document Based Question:
The Effects of the Industrial Revolution

Historical Content: ***The Industrial Revolution, which began in the late 1700's, had a wide range of positive and negative effects on the economic and social life of the people in England. These results have been interpreted from a variety of perspectives- the factory workers, the factory owners, the government, and others who observed the conditions in industrial cities at the time.***

Directions: The following question is based on the accompanying documents in Part A. As you analyze the documents, take into account both the source of the document and the author's point of view. Be sure to:

1. Carefully read the document-based question (DBQ). Consider what you already know about this topic. How you would answer the question if you had no documents to examine?
2. Now, read each document carefully, underlining key phrases and words that address the document-based question. You may also wish to use the margin to make brief notes. Answer the questions, which follow each document.
3. Based on you own knowledge and on the information found in the documents, formulate a thesis that directly answers the question.
4. Organize supportive and relevant information into a brief outline.
5. Write a well-organized essay proving your thesis. The essay should be logically presented and should include information both from the documents and from your own knowledge outside of the documents.

<u>QUESTION:</u> Evaluate the positive and negative effects of the Industrial Revolution. Overall, was the Industrial Revolution a blessing or a curse?

Your paper should be a five paragraph persuasive essay containing:

- Introduction
- Three body paragraphs to support your reasoning (whether positive or negative)
- Conclusion

Doc. #	I.R Positive	I.R Negative	Theme(s)	Explanation Supporting Reason
Doc. 1				
Doc. 2				
Doc. 3				
Doc. 4				
Doc. 5				

Doc. 6				
Doc. 7				
Doc. 8				

PART A: ANALYZE THE FOLLOWING DOCUMENTS THAT DESCRIBE THE EFFECTS OF THE INDUSTRIAL REVOLUTION AND ANSWER THE QUESTIONS THAT FOLLOW

Document # 1

The following is an excerpt from William Cooper's testimony before the Sadler Committee in 1832. (The Sadler Committee was established by the British government in 1832 in response to criticisms of working conditions in factories. Both factory owners and workers testified to the Committee and during the course of these testimonies it became clear that industrial workers (whether men, women or children) were being subjected to appalling working conditions in Britain's factories.)

Sadler: What is your age?
Cooper: I am eight and twenty.
Sadler: When did you first begin to work in mills?
Cooper: When I was ten years of age.
Sadler: What were you usual hours of working?
Cooper: We began at five in the morning and stopped at nine in the night.
Sadler: What time did you have for meals?
Cooper: We had just one period of forty minutes in the sixteen hours. That was at noon.
Sadler: What means were taken to keep you awake and attentive?
Cooper: at times we were frequently strapped.
Sadler: When your hours were so long, did you have any time to attend a day school?
Cooper: We had no time to go to day school.
Sadler: Can you read and write?
Cooper: I can read, but I cannot write.

Does this testimony describe positive or negative effects of the Industrial Revolution?

_____
_____
_____

Describe the effects of industrialization on children working in the factory.

_____
_____
_____

Document # 2

Here is an excerpt from the testimony of Joseph Hebergam to the Sadler Committee.

Sadler: What is the nature of your illness?
Hebergam: I have damaged lungs. My leg muscles do not function properly and will not support the weight of my bones.
Sadler: A doctor has told you that you will die within the year, is that correct?
Hebergam: I have been so told.
Sadler: Did he tell you the cause of your illness?
Hebergam: He told me that is was cause by the dust in the factories and from overwork and insufficient diet…
Sadler: Do you know any other children who died at the R____ Mill?
Hebergam: There were about a dozen died during the two years and a half that I was there. At the L___ Mill where I worked last, a boy was caught in a machine and had both his thigh bones broke and from his knee to his hip the flesh was ripped up the same as it had been cut by a knife. His hands was bruised, his eyes were nearly torn out and his arms were broken. His sister, whop ran to pull him off, had both of her arms broke and her hear bruised. The boy died. I do not know if the girl is dead, but she was not expected to live.
Sadler: Did the accident occur because the shaft was not covered?
Hebergam: Yes.

Does this testimony describe positive or negative effects of the Industrial Revolution?

_____
_____
_____

What effects did the working conditions have on workers?

_____
_____
_____

Document # 3

This excerpt is from "The Philosophy of Manufactures" by Andrew Ure, 1835.

> I have visited many factories, both in Manchester and in the surrounding districts, and I never saw a single instance of corporal chastisement (beating) inflicted on a child. They seemed to be always cheerful and alert, taking pleasure in the light play of their muscles… As to exhaustion, they showed no trace of it on emerging from the mill in the evening; for they began to skip about… It is moreover my firm conviction (opinion) that children would thrive better when employed in our modern factories, than if I left at home in apartments too often ill-aired, damp and cold.

According to this author, were the effects of the Industrial Revolution positive or negative?

_____
_____
_____
_____

How does Andrew Ure describe the conditions in factories he visited?

_____
_____
_____

Document # 4

This excerpt is from "The Working Man's Companion" subtitled "The Results of Machinery, Namely Cheap Production and Increased Employment". It was published in 1831.

> You are surrounded, as we have constantly shown you throughout this book, with an infinite number of comforts and conveniences which had no existence two or three centuries ago and those comforts are not used only by a few, but are within the reach of almost all men. Every day is adding something to your comforts. Your houses are better built, your clothes are cheaper, you have an infinite number of domestic utensils. You can travel cheaply from place to place, and not only travel at less expense, but travel ten times quicker than two hundred years ago.

According to this author, were the effects of the Industrial Revolution positive or negative?

_____
_____
_____

Cite three details from the excerpt to support your answer.

_____

_____

_____

Document # 5

This description is from a pamphlet published in 1797 by the Society for Bettering the Condition and Increasing the Comforts of the Poor.

> The village contains about 1500s inhabitants, of whom all who are capable of work are employed in and about the mills. Of these there are 500 children who are entirely fed, clothed, and education by Mr. Dale. The others live with their parents in the village and have a weekly allowance for their work. The healthy appearance of these children have frequently attracted the attention of the traveler. Special regulations, adopted by Mr. Dale, have made this factory very different from the others in this kingdom. Out of the nearly 3000 children employed in the mills from 1785 to 1797, only fourteen have died.

According to this author, were the effects of the Industrial Revolution positive or negative?

_____

_____

_____

What benefits were provided to people of this village?

_____

_____

_____

Document # 6

This excerpt, from Manchester in 1844, was written by Leon Faucher (Frank Cass & co. Ltd., 1969) after his visit to English factory towns.

> The little town of Hyde was at the beginning of the century a little hamlet of only 800 people, on the summit of a barren hill, the soil of which did not yield sufficient food for the inhabitants. The brothers Ashton have peopled and enriched this desert… Mr. T. Ashton employs 1500 work people (in his factories). The young women are well and decently clothed… The houses inhabited by the work people form long, and large streets. Mr. Ashton has built 300 of them, which he lets (rents) for… 75 cents per week… Everywhere is to be observed a cleanliness which indicates order and comfort.

According to this author, were the effects of the Industrial Revolution positive or negative?

_____
_____
_____

What did Leon Faucher observe when he visited Hyde?

_____
_____
_____

Document # 7

This excerpt from "The Conditions of the Working Class in England" was written by Fredrich Engels after he visited an English industrial city in 1844.

> Every great town has one or more slum areas where the workers struggle through life as best they can out of sight of the more fortunate classes of society. The slums… are generally unplanned wilderness of one-or – two stories houses. Wherever possible these have cellars which are also used as dwellings. The streets are usually unpaved, full of holes, filthy and strewn with refuse. Since they have neither gutters nor drains, the refuse accumulates in stagnant, stinking, puddles. The view of Manchester is quite radical. The main river is narrow, coal-black and full of stinking filth and rubbish which it deposits on its banks… One walks along a very rough path on the river bank to reach a chaotic group of little, one-story, one-room cabins… In front of the doors, filth and garbage abounded…

According to this author, were the effects of the Industrial Revolution positive or negative?

_____
_____
_____

What did Engels observe as he visited an English industrial city?

_____
_____
_____

Why did Engels focus on the negative results of industrialization?

_____
_____
_____

Document #8

British Iron Production (1740-1900)	
1740	17, 350 TONS
1796	125,079 TONS
1839	1,248,781 TONS
1854	3,100,000 TONS
1900	9,000,000 TONS

Describe British iron production between 1740-1900.

_____
_____
_____

Is this a positive or negative effect of the Industrial Revolution?

_____
_____
_____

PART B: COMPOSE A FIVE PARAGRAPH PERSUASIVE ESSAY THAT ARGUES WHETHER THE INDUSTRIAL REVOLUTION WAS A BLESSING OR A CURSE. BE SURE TO FOLLOW PROPER FORMAT AND SUPPORT YOUR VIEWPOINT WITH PLENTY OF EVIDENCE

Appendix CC: Persuasive Writing Prompt Grade 10 Historical DBQ B – *US-Iran Relations* Essay

US-Iran Relations Essay Assessment

Historical Background: While once Iran and the US considered themselves to be partners in the struggle against communism and the looming threat of the ever growing Soviet Union, the relationship has now become one of animosity and fear. You will be evaluating the events that led to the breakdown of this relationship and the current situation between the two nations.

Task: You will complete a well-written, fully developed draft of a 5-paragraph essay. Your essay will explain who you feel is more responsible for the breakdown of relations between the US and Iran. This essay should be representative of your knowledge of Iran-US relations, and should include information from the film, articles, class discussion and outside knowledge.

Question: As the relationship between the US and Iran has continued to deteriorate over the last several decades, ***which nation do you feel bears the brunt of the responsibility*****?** Be sure to take into consideration foreign policy decisions as well as public opinion and military actions.

Appendix DD: Permission to Use and Publish the SEWS

Mail Message

Reply Reply All Read Later

Mail Properties

From: Roger Bruning <rbruning1@unl.edu> Wednesday - September 26, 2012 11:12 AM
To: Jessica Galbraith <galbraithj@bethel.k12.ct.us>
Subject: RE: Writing Intervention Study
Attachments: Instructions for Administeringthe High School Writing Survey.docx (14 KB) [Save As]
LPS High School Writing Survey4-1-09 (Final), with highlights.docx (37 KB) [Save As]
Mime.822 (90 KB) [Save As]

Hi Jessica,
I've attached two documents: (1) a copy of our larger Writing Habits and Beliefs survey, which contains items for SEWS (section 5, Confidence about writing), along with several other scales (Liking Writing Scale, implicit beliefs, goals for writing) and (2) general instructions for administering the WHBS, which of course includes SEWS. We have given this to 8th graders, 11th graders, and to college students. The self-efficacy items that we utilized and which comprise the final SEWS (and that appear in the JEP article) are highlighted.
And, yes, you have permission to use SEWS, along with any of the other sets of items from the WHBS as you wish (e.g., the Liking Writing Scale, section 3; etc). As far as scoring SEWS, you just add up the scores for each item, which each will be between 0 and 100 and divide the total for each item set (e.g., for conventions, ideation, self-regulation) by the number of items in that set (5, 5, and 6, respectively). Final scores for each subscale will then be between 0 and 100.
Please let me know if you need anything else—Good luck!
Roger

From: Jessica Galbraith [mailto:galbraithj@bethel.k12.ct.us]
Sent: Wednesday, September 26, 2012 9:37 AM
To: Roger Bruning
Subject: RE: Writing Intervention Study

Thank you so much for permission and for your encouragement. I am very excited to start my study and good luck with yours. Would you be able to send me a copy of the SEWS including any official directions that you might have and also any accompanying manuals and scoring procedures? I also just wanted to confirm that in addition to permission to use the SEWS I also have permission to include it in anything that I might publish as a result (my university likes us to ask for all consent up front).

Thank you again.
Jessica Galbraith

Appendix EE: Student Demographic Survey

Student Demographic Survey

Student ID Number: _____

Teacher: _____

Class: _____

Period: _____

Gender: Male Female

Grade: 9 10 11 12

Ethnicity: please chose one of the following:

African American	
Asian/Pacific Islander	
Hispanic	
Native American	
White	
Multi-Racial Please list all	

Appendix FF: Teacher Demographic Survey

Teacher Demographic Survey

ID: _____

1. Gender: female _____ male _____

2. Years of teaching experience: _____

3. Subjects you have taught:_____

4. Education - please complete the chart. If a box does not apply to you, please leave it blank**:**

Degree	Major	Minor/Concentration
Bachelor's		
Master's		
Sixth-Year		
Doctorate		

5. Teaching Certification – Please list all current certifications:

_____

_____

6. Please select as many of the following statements that apply to you:

[ ] Writing is a critical skill that should be embedded into social studies.

[ ] I like to write personally or professionally.

[ ] I enjoy teaching writing to my students.